INTERSTATE MEDICAL JOURNAL.

VOL. XII. JUNE, 1905. No. 6.

ORIGINAL ARTICLES.

ACTINOMYCOSIS.

BY J. A. MATLACK, M. D., Galesburg, Illinois.

Preliminary to a general review of the subject of actinomycosis, I wish to briefly refer to a case which I recently saw in conjunction with Dr. Percy, and which will serve to illustrate many of the features of this interesting disease.

Mrs. A., aged thirty-two, a farmer's wife, presented herself for treatment four months ago for multiple abscesses of the chest wall. These abscesses had existed for about three months, gradually growing larger, and discharging a thin, whitish pus. She had consulted several physicians, who had diagnosed and treated the case as one of ordinary pus infection, but her condition had gradually grown worse under such treatment. Her general health had not suffered greatly, but she had a persistent cough, with profuse expectoration, which had existed for a month previous to the appearance of the abscesses. She also complained of a constant dull pain in the right side.

Examination of the chest showed five or six red, angry-looking swellings from one to two inches in diameter, extending in a line at the level of the seventh and eighth ribs posteriorly on the right side, discharging thin pus through numerous small openings resembling somewhat the breaking down of a carbuncle, the little apertures being fringed about with outgrowths of peculiar bluish, soft granulation tissue. The pus contained numerous grayish granules about the size of a pinhead. Physical examination of the chest showed signs of pleuritic effusion, extending as high as the fifth rib posteriorly on the right side, with coarse rales over the middle portion of the lung. The patient's general appearance indicated rather poor health.

The sputum was light colored and watery, and was filled with granules similar in appearance to those found in the pus. Microscopic examination of these granules from both pus and sputum showed them to be colonies of ray fungi.

The fact that the pulmonary symptoms appeared a month prior to the development of the abscesses makes out a clear case of actinomycosis primarily affecting the lung, thence extending to the pleura and finally penetrating the chest wall.

No clew as to the source of infection could be obtained from the patient's history. The disease known as "lumpy jaw" did not exist among the animals on her farm or in the immediate neighborhood.

According to the recorded experience of writers on this subject, actinomycosis involving the lung and pleura is practically without hope of recovery, hence in this case our prognosis was unfavorable. The manifest fact that there was considerable involvement of the lung made surgical intervention inadvisable, so we decided on purely medical treatment. The patient was placed on small doses of potassium iodide, rapidly increasing the dosage from day to day. She showed at once a remarkable tolerance to the drug, and also began to show improvement after a very few days of treatment. In accordance with our usual practice, we then referred the patient to her home physician, and were fortunate in having her come under the care of Dr. H. S. Zimmerman, of Cameron, who has taken a lively and intelligent interest in the case, and has carried on the potassium iodide treatment with very gratifying results. The dosage of the drug has at times been carried above two ounces per diem. Dr. Zimmerman's reports on the case have indicated a gradual but steady improvement. The cough has disappeared, the abscesses are healed with the exception of one small opening, and the patient's general condition is quite good. The only physical abnormality to be noted is an area of relative dullness over the site of the former pleuritic exudate.

From present indications it would seem quite probable that this patient will entirely recover, but it is possible that there may be areas of infected and broken down tissue which will remain impenetrable to the action of the drug. In such case the remaining pus and detritus may be removable by surgical methods. The difficulties of operating for such a disease in this portion of the body will be at once apparent.

It is only within the last generation that actinomycosis has been recognized in man; yet it has no doubt existed from time immemorial, and it seems strange that a condition so characteristic and so easily identified should have been so long without definite classification. The disease has been observed in nearly all parts of the world, but it has been only within the last few years that many cases have been reported in this country. It might seem from the increasing number of cases reported that the disease is on the increase, but it is more probable that a knowledge of its characteristics is becoming more widespread among physicians, hence its recognition is more frequent.

Etiology.—There is no form of disease that affords the diagnostician more satisfaction than does actinomycosis, because when once suspected its existence can be proved or disproved with mathematical exactness. If the disease be actinomycosis there is invariably present in the lesion the micro-organism known as the streptothrix actinomyces or "ray fungus." It appears, macroscopically, either in pus, granulations or

necrotic tissue as small granules, easily visible to the naked eye, and quite characteristic in appearance. The larger granules are yellowish in color, and the smaller granules, representing younger colonies of the organism, are gray. If one of the granules be placed on a glass slide and flattened out by the application of a cover glass, it will appear under a magnification of 500 diameters in the characteristic "ray" formation. Three zones will be evident in the circle—a central granular zone, a middle zone of interlacing and radiating threads and an outer zone of club-shaped terminations of these threads. For more certain identification of the fungus it is well to stain it by Gram's method, which decolorizes other fungi which might be confused with it. With this method the branching threads are stained a bright blue. The club-shaped ends do not take on the blue stain, but they may be counterstained with picrocarmine. Gram's method also applies when staining the colonies in tissues.

Mode of Infection.—For the purposes of this paper the possibility of direct transmission of the disease from cattle to man need only to be mentioned in passing. A few cases have been reported where such direct transmission has seemed probable, but in all such instances it has been observed that the infected person lived under the same conditions as did the animal, exposed to the same general possibilities of infection.

The valuable researches of Hectoen along this line have proven that man, as well as beast, is subject to direct infection through the agency of cereals and the dried stalks and husks of small grain. The ray fungus has a wide distribution, and has been repeatedly isolated from the air, water and soil, and particularly from infected vegetation. It has also been found in the oral cavity of healthy men and animals. The organism has been placed on dry sterile beards of grain, where it has developed and remained alive for months and years. It is therefore plain that the fungi are present in the common surroundings of mankind to as great an extent as are the bacteria of many of the more common diseases, and the fact that the disease itself is not more widespread must be explained by the assumption that either the normal human body is highly resistent to the infection, or that the germ of the disease is harmless unless it gains access to the tissues in some difficult and unusual manner.

Carious teeth have been considered convenient portals of entrance for the infection, but it is more probable that an associated softening of the gums is more directly concerned. Probably the most common mode of infection is through the agency of chaff and beards of cereals, which may be eaten or inhaled, and which may penetrate the mucous membranes or find lodgment in an abraded surface. If such particles are bearers of actinomyces colonies, as is often the case, an infection is likely to follow. Numerous instances have been reported in which the

actinomycotic lesion had in its center a foreign body of vegetable nature, covered by ray fungi.

Infection through the skin is uncommon, but it is possible for a wound or abrasion to admit the infection.

Ingestion of food bearing the fungus may result in infection of the gastro-intestinal tract, and cases have been reported as appearing in each of the abdominal viscera. Metastasis takes place usually through the blood.

Infection of the respiratory tract usually occurs through inhalation, but may spread directly from the jaw along the muscles of the neck; thence into pleura or lung.

Pathology.—The changes which this infection produce in the tissues of man consist essentially in the breaking down of normal structures, accompanied by a growth of characteristic indurated connective tissue and spongy granulations. This process results in the formation of abscesses and sinuses, and the production of pus containing the actinomyces colonies. Where the process presents externally there is at first the picture of an indolent abscess, with false fluctuation of the spongy tissue. Eventually the abscess breaks externally, usually through a number of small openings, after the manner of a carbuncle, and a mass of purplish granulations form about the openings. If left untreated the disease burroughs deeply, forming sinuses and affecting all tissues down to and including the bone.

On cross section the actinomycotic mass usually shows numerous small pus cavities walled off by dense tissue presenting a microscopic picture scarcely distinguishable from sarcoma.

In the lungs the post-mortem appearance is quite similar to that of fibroid phthisis, and, except for the granules in the pus, it may often be found difficult to detect a difference between the two diseases.

In the gastro-intestinal tract the mucous membrane may first become the seat of colonies of the fungus; later, small white nodules may be found in the submucous tissues; thence by extension the infection may reach the deeper organs, there to produce the usual phenomena of sclerosis, softening of the tissues and abscess formation.

Symptomatology.—The subjective symptoms naturally vary with the location and extent of the lesions, but it is a peculiarity of this disease that its local manifestations are proportionately much greater than are the complaints of the patient. In cases which are well advanced the general health of the patient suffers materially, but in the early stages the general condition is usually good, and very little pain is complained of.

In actinomycosis of the head and neck a swelling appears most commonly at the angle of the jaw, and tends to travel downward. Difficulty in moving the jaw is a significant complaint of the patient, due to the early involvement of the muscles. There is seldom any marked pain

in this region. In the past these lesions have often been mistaken for tuberculosis, syphilis or malignant disease. It may be differentiated from these several diseases by the fact that it is generally unilateral, there is no lymphatic involvement, the mild effect on the patient's general health, freedom from hereditary taint or significant history, and finally by the microscopic demonstration of the fungus.

The pulmonary form of the disease produces symptoms closely resembling those of phthisis pulmonalis. There is moderate pain, generally unilateral, cough and profuse expectoration, general wasting and moderate fever. The diagnosis must be made by microscopical examination of the sputum.

The abdominal form of the disease is seldom recognized specifically unless it points externally, or is revealed by surgical exploration. The symptoms are, in general, those of subacute inflammation of such organs or structures as may be involved in the infection.

Prognosis.—Where the disease is situated superficially, it can usually be cured by thorough removal of diseased tissue and subsequent careful medical treatment. Occasionally spontaneous recovery takes place. In deep-seated infection the outlook for recovery is unfavorable. In incurable cases the patient may live from one to three years.

Prophylaxis.—Although direct communication of the disease from an infected animal or man is doubtless rare, yet strict precaution should be taken to prevent the dissemination of infectious discharges, as indirect infection is quite possible. Animals having the disease in an incurable form should be killed. People living in the country should be educated as to the nature of the disease, and cautioned against the habit of chewing straw or raw grain.

Treatment.—The principles of treatment in this disease are very simple, and honors are equal between medicine and surgery. Potassium iodide has been found to have a marked inhibitory effect on the progress of the disease, and from the therapeutic tests it would seem that the ray fungi are destroyed by the drug whenever they are within reach of the body fluids. To be effective the iodide should be given in large doses and pushed to the limit of tolerance. A good plan of administration is to quickly reach the maximum dose which can be borne by the patient, and then give the drug intermittently, withdrawing it for two or three days to allow development of spores, then repeating the large doses for a few days, following up this plan until the disease is apparently eradicated. Even after the patient shows no further symptoms, the iodide should be administered a few days out of each month for several years. The surgical treatment consists in the thorough removal of all infected tissue.

LARYNGEAL DIPHTHERIA.

By O. H. Wilson, M. D., Nashville, Tennessee.

The proof of the clinical and therapeutic identity of laryngeal diphtheria and membranous croup, is one of the brilliant results of modern bacteriological research, confirmed conclusively by sero-therapy. While we recognize that the laryngeal membrane may, in rare instances, be of traumatic origin, due to inhaled vapors or liquids, or may be the result of infection with some other bacteria, probably streptococcus, yet the clinical fact of a laryngeal membrane demands active antidiphtheritic treatment without waiting for a bacteriological diagnosis.

Pathology.—There is no material difference in the formation of the diphtheritic membrane in the larynx from that in other localities, except that after passing the vocal cords there begins the columnar ciliated epithelium characteristic of the air passages, and on this bed the membrane is formed more rapidly, with less epithelial destruction, is tougher and less adherent to the mucous membrane, though the process is essentially the same. Diphtheria in the larynx may be a simple catarrhal inflammation in which the Klebs-Loeffler bacillus may be demonstrated. Laryngeal diphtheria may be primary and localized, or involving the trachea and bronchial tubes also, or it may be secondary to pharyngeal and tonsillar involvement. I shall confine my remarks especially to localized laryngeal diphtheria, though in a general way they are applicable to the secondary form, except that in such cases we have also to deal with systemic toxemia. About one-sixth of all cases of diphtheria involve the larynx.

Symptoms.—At first we see the symptoms of simple laryngeal irritation, even less abrupt and less marked constitutional disturbance than in a simple inflammation. A harsh cough, a general hoarseness, stridor, temperature 99 or 100, pulse slightly accelerated; these being the symptoms marking any laryngeal irritation; but rapid progress is the characteristic feature of the diphtheritic process. In twelve or twenty-four hours vast changes have taken place; every symptom is exaggerated; the membrane is formed; the voice, hoarse at first, is now entirely lost, and dyspnea becomes prominent; the child sits up, leans forward, throws its head back, fights for air, every accessory muscle assisting in respiration. We see epigastric, suprasternal and intercostal depressions, the rise and fall of the larynx; the struggle for air is intense. Freeman reports a case in which the costal cartilage was separated from the rib, a hernia of the lung resulting. Respiration is not much increased—twenty to thirty, though the rythm is disturbed. There is a prolonged whistling inspiration, an interval, then harsh and labored expiration, with incomplete emptying of the thorax which is shown by the depressed diaphragm,

There are spasms of coughing, when the otherwise pale skin gives place to lividity; there may be more or less cyanosis, especially in the finger tips, then after this great prostration with clammy sweat, the respiration becoming softer. The pulse is extremely weak and fast, temperature rarely higher than 100 until near the end, when it runs up to 105° or 106°. The usual termination is in convulsions or stupor. These symptoms are not the resultant of diphtheritic toxine, but purely of the local obstructive process, causing exhaustion from the struggle, due to air, hunger and carbon dioxid poisoning. The striking feature is the rapidity of the case, especially in young children. The disease may run its course to a fatal termination in twenty-four hours, though usually it lasts from three to seven days. It is to be emphasized that these symptoms are paroxysmal, the spasms of coughing and intese dyspnea, followed by general relaxation and comparatively quiet breathing. Post-mortem findings may even demostrate a decided air aperature in a larynx of a child dying with cyanosis, showing the spasmodic element in the laryngeal obstruction, and for this reason we can explain the rather exaggerated symptoms in neurotic and rachitic children, and in those under two years of age. Great improvement may follow the coughing up of the membranous cast of the larynx, though it usually rapidly reforms. A review of these symptoms will show little in common with those of ordinary pharyngeal diphtheria, and it is easy to appreciate the tardiness with which the profession accepted the demonstration of the identity of the two processes. In laryngeal diphtheria we have only the local symptoms, which are so rapid and so disastrous, that the systemic poisoning does not take place; besides, the laryngeal mucous membrane is not supplied with absorbents to the extent that the tonsils and pharynx are, hence we see a low temperature, no depression of toxemia, rarely albuminuria, paralysis, or nerve degeneration. The relative lack of contagion is explained by the short course and scanty secretion. The differentiation of these rare cases, due to trauma, or other bacilli than the Klebs-Loeffler, can only be determined by the course of the disease, or by bacteriologic examination, neither of which have we time to wait upon, as a few hours may mean the loss of the patient. Bacteriologic examination is, at best, unreliable. Fifty per cent. of the cultures are negative, and a negative result is never taken. The membrane resulting from streptococcus invasion is usually thinner and less dense, hence rarely gives severe symptoms.

Diagnosis.—This is usually easy. We must first determine that the dyspnea is laryngeal by excluding foreign body, retropharyngeal abscess and broncho-pneumonia; then we must decide between a simple and membranous inflammation, which is done by the severity, constancy and rapid progress, especially in young children.

Prognosis.—The prognosis has changed recently. In pre-antitoxine days it was regarded as almost necessarily fatal, 90 per cent. dying,

while in properly treated recent cases 20 per cent. mortality is about the average.

Treatment.—Remembering that laryngeal diphtheria is diphtheria, isolation must be insisted upon from the first, though it must be admitted that, on account of the small amount of secretion, the danger of contagion is a minimum. We must have an evenly heated room, temperature 70 to 72. The steam tent lessens the tendency to spasmodic laryngeal contractions. Calomel fumigations, ten grains every four hours, are lauded by many, and may prove useful, especially in the rare class of cases due to streptococcus infection. There is danger of salivation to both patient and attendant, and should be done very gradually. Gargles, irrigations, sprays, etc., are practically useless. In fact, the medical treatment may be summed up in one word "antitoxine," given early and in large doses. Never mind about the bacteriological diagnosis; valuable time is thus lost. Don't wait on any pet theory as to the existence of streptococcus cases. Give antitoxine and arrest the progress of the membrane, so surely fatal if time is lost. The serum has been repeatedly demonstrated practically harmless, so it is not contraindicated in the small percentage of cases not due to the Klebs-Loeffler bacillus. Three thousand units should be the minimum dose if the clinical diagnosis is made; this to be repeated in six hours if no marked improvement. The innocuousness of the serum has been many times proven. MacCollom, of Boston, uses in every diphtheritic case 20,000 to 60,000 units. Emetics and depressants in general are contraindicated. Stimulants, strychnine and alcoholics, are useful, but not to the extent seen in pharyngeal dipththeria, where the depression is due to toxemia. Here it is simply the result of physical exertion to overcome a mechanical obstruction, and the best remedy is mechanical relief to this obstructed air passage. One of the greatest victories of antitoxine is the arrest of the growth of membrane, thus arresting obstructive symptoms, thus lessening the number of cases requiring operative interference. In recent days this has been diminished 50 per cent. by timely use of large doses of antitoxine, and the operative mortality has been greatly decreased. Many years ago attempts were made to relieve the distressing air-hunger of this disease, and for this purpose the operations of tracheotomy and intubation were devised, which lessened the mortality 10 per cent., though at first, due to imperfect technique, there was but little result, the mortality of the operative cases being 97 per cent., the operation being undertaken more to save the child the horrible suffering attendant upon slow suffocation. Before the antitoxine era many heated discussions with long array of statistics were brought forth by the advocates of the opposing operations to prove their superior merits. The Americans usually sustained the invention of their countryman, O'Dwyer, while the Europeans adhered to tracheotomy; but the best statistics either side could show were about 75 per cent. mortality. With

antitoxine these figures have been reversed; 75 per cent. are now saved. Since the introduction of antitoxine, American and, in fact, nearly all European authorities, with one accord, proclaim intubation the operation of election, though the conservatism of some eminent men is distressing. I quote the opinion of Graetzer, the editor of the *Centralblatt fuer Kinderheilkunde*, as expressed in the English translation just from the press: "As intubation calls for such skillful manipulation and constant medical attention, it is improbable that it will ever become popular. . . . It is doubtful if intubation will ever displace tracheotomy, which is often unconditionally preferable." Holt succinctly points out the superiority of intubation thus: "First, it is quicker, safer and adds no danger to the original disease. Second, there is no shock. Third, there is no anesthetic required. Fourth, there is no wonnd for infection. Fifth, there is no better opportunity for expulsive cough. Sixth, no parental objection. Seventh, air is admitted to the lungs, warm and cleansed. Eighth, no skillful after-treatment is required. Ninth, it is much superior in early infancy. Tenth, the tube can be dispensed with earlier than the tracheotomy canula. Eleventh, if secondary tracheotomy is necessary, the tube can be used as a guide."

The two methods have been aptly compared to tapping the bladder and the use of the catheter. No one would hesitate as to choice, though the former might become necessary. While the mortality has been greatly reduced, intubation does no more than it always did—namely, mechanically relieves mechanical obstruction until the production of membrane has ceased, now cut short in its progress by antitoxine.

The time to operate is one point requiring the skillful judgment of the attendant. The aim of all treatment is to reduce the mechanical obstruction—that is, reduce the number of operative cases, but in no condition is a timely operation more valuable. Cyanosis is certainly no guide, as it frequently comes just before death, if at all. Dyspnea is a symptom calling for relief, and should determine the time for operative interference. Little or no harm is done by the skillful introduction of the tube, so don't delay too long. The following symptoms call for mechanical assistance: Evidence of necessary respiratory efforts, as shown by abdominal, thoracic and cervical muscles; weakened pulse with cold extremities; great depression, due to overexertion; rapidly rising temperature, indicative of systemic poisoning; great restlessness or coma. There is no time *not* to intubate. As long as there is life there is hope, and almost even longer; with antitoxine, hypodermoclysis and intubation, moribund cases are time and again saved. In about 3 per cent. of intubations the membrane is pushed downward by the introduction of the tube, which might cause a fatal issue, but if the tube is withdrawn at once, this is easily coughed up; if not, we must resort to immediate tracheotomy, so the operator must be prepared for this emergency.

O'Dwyer, Northrup, Caille, and other pioneers in intubation, always

contend that it is a very difficult operation, only possible in the hands of a few with special training. This, in my opinion, has been responsible for many deaths. O'Dwyer naturally felt that to insure the adoption of his method it was all-important to keep it in the hands of experts in the beginning, and so avoid the odium of failures due to inexperience. Following MacCollom, Jennings, and others of large experience, I must say it has always appeared an easy operation, and after a little practice on the cadaver, or an anesthetized dog, almost any one ought to be able to operate in an emergency, and as no force is required it ought not to do any harm. O'Dwyer attributes the bad sequelæ of intubation either to faulty technique or faulty instruments. He was loud in his warnings against the tube commonly in use, made by careless manufacturers. In this age of change it is noteworthy that no modification of his tube or instruments has found general favor with the profession, the ideal tube which his admirers claim as perfect, being the original set made by O'Dwyer. Only one modification of technique has found anything like general adoption; that is, the use of the horizontal position advocated by MacCollom, instead of the old sitting position. The merit of this is easily seen in cases of depressed heart action from toxemia or physical exhaustion.

The objects of this paper are:

1. To emphasize the importance of early mechanical relief, when mechanical obstruction threatens life. Do not delay until depression is marked. Remember that rapidity of progress is the characteristic feature of laryngeal diphtheria. You do not know what will happen before your next visit.

2. That while in no other operation does skill show to better advantage, intubation is not a difficult procedure, but can be learned easily by practice. An early operation, though possibly awkward, is better than waiting to give a moribund case to an imported consultant.

Moral: Don't wait; intubate.

MOVABLE KIDNEY, WITH A REPORT OF FIVE SUCCESSFUL NEPHRORRHAPHIES.

By E. E. Gelder, M. D., Peoria, Ill.

The writer desires to report the following five cases of movable kidney. In all descriptions I shall maintain a strict adherence to the following classification of mobile kidneys: 1. Floating kidney. 2. Misplaced kidney. 3. Movable kidney.

By floating kidney is understood that congenital anomaly in which this organ is intraabdominal, being more or less completely surrounded by peritoneum, the layers of which pass backward along the vessels and ureter as a mesonephron.

Misplaced kidney is a rare, congenital anomaly of which most writers have made little or no mention. For this reason, and as I shall not have occasion to speak of it again, I will stop long enough to state briefly its characteristics. The organ in this case is firmly attached in some locality other than its normal one; and when so situated it takes the name of the part as pelvic kidney if it is in the pelvis. This does not mean a kidney which has migrated to the pelvis, but one of the kind reported by Henry Morris[1], who found at autopsy ten cases in which this organ was within the pelvis, the ureter being short and the renal artery coming off from the common iliac. Craigin[2] mentions six other reported cases: One by Hohl, one by Heuter, one by Fishel, one by Reunge, one by Albers and Schonberg, and one by himself. In his own case he did a vaginal nephrectomy, likely the only one on record. Gibbon[3] also reports a case found at autopsy.

This brings us to our subject. When the kidney has no mesonephron, but still possesses an acquired mobility, it is designated as a movable kidney. This condition is of common interest to the general practitioner, the internist, the general surgeon, and the gynecic surgeon. Osler[4] says that far too much stress has been laid upon the condition of late years, but an appeal must be taken from this statement. We can not watch too closely for any abnormality, and this is usually one of the last affections to enter a physician's mind when he seeks to explain many nervous and gastrointestinal symptoms presented to him. How often when an adult female patient complains of dragging pain in the abdomen, headache, and backache. does he tell her she is suffering from uterine or ovarian trouble, and confine his attempts toward remediation to these organs. Though extremes are also deplorable, still, when the patient's symptoms cannot be attributed to a discovered pathological lesion elsewhere, he should ascertain the location of the kidneys.

Etiology.—For this condition, first recognized by Rayer in 1841, there have been suggested a multiplicity of causes; but most all writers include the following as etiological factors. Forcing of the organ from its normal location by muscular contraction in coughing, straining, and heavy lifting; traumatism from external violence, rapidly repeated pregnancies; emaciation from wasting diseases; general relaxation of the abdominal walls with associated gastroptosis, enteroptosis, or both; increase in the size of the kidney from any cause; and tight lacing. Hirst[5] also includes diastasis of the recti muscles, sudden evacuation of fluids from the abdomen, and an abnormal shape of the pouch the kidney rests in. Bacon[6] includes unrepaired lacerations of the pelvic floor.

As you all know it is the right kidney which is usually displaced, and that it rarely occurs in men, yet it is not a condition peculiar to women who have borne children, one writer[7] having found it more frequently in unmarried women.

Subjective Symptoms.—The following are the symptoms of most frequent

occurrence: A dull, dragging sensation, often painful, on the affected side, in the back and abdomen; a non-painful sensation of something moving in the abdomen; the detection by the patient of a "lump" in the side; various gastrointestinal symptoms as indigestion, constipation, and a sense of fullness from gas; all degrees of nervous symptoms from simple headache to neurasthenia and hysteria; urinary symptoms may or may not be present—usually there are none; the patient's discomfort is exaggerated by the long continuance of any one position of the body, especially prolonged standing or walking. Hirst[5] mentions a symptom which was present in two of the appended cases, *i. e.*: "She finds herself instinctively raising the right shoulder, or habitually keeping it higher than the left if the right kidney alone is displaced." Tyson[8] also mentions a symptom which was given by another in her history, *i. e.*, an inability of the patient to lie with comfort on the left side when the right kidney is displaced.

That complex of subjective manifestations commonly known as Dietl's crisis is both a symptom and a result of mobility of the organ, being an accident which occurs with either a floating or a movable kidney. It is an extremely painful form of renal colic occasioned by twisting of the vessels and ureter when the organ is rotated on its horizontal axis. A sharp, sickening pain in the side, associated with the symptoms of shock, characterizes it.

Method of Examination.—When a knowledge of the location of a kidney is desired, the patient should be examined in more than one position. Many of these have been suggested, but only two will be described, as they give good results and are applicable to both office and house examinations. Have the patient remove all clothing from the abdomen and sit with her back and head supported and with her arms hanging freely by her sides. Instruct her to relax all her muscles and breathe easily through her mouth. The examiner places one hand over the renal region, the other over the abdomen, and with pressure upward and backward palpates for the kidney, it being his intention to determine the position and degree of mobility of it. When it can only be felt on deep inspiration of the patient, it is probably only a palpable and not a true movable kidney.

The other position is to have the patient stand with the body flexed at the pelvis, and with her hands on a chair about the level of her knees. She is instructed to support the chest and head entirely with her arms, to relax the muscles of her back and abdomen, and to breathe easily through her mouth. The examiner stands at the side and, as before, places one hand over the renal region and with the other palpates the abdomen.

Objective Symptoms.—These include the finding of a movable tumor in the abdomen, whose size is such that it would be reasonable to suppose it a kidney; dullness on percussion over the tumor, with an area of

tympany between it and the costal margin; tympany instead of dullness over the renal site; the tumor does not move with respiration, and the patient may complain of a sickening pain when deep pressure is made over it.

It might not be out of place at this time to note that the suprarenal gland does not follow the kidney down.

Differential Diagnosis.—The following case is illustrative of one of the important conditions to be considered under this head: While an interne in the Howard Hospital in Philadelphia I examined a woman brought in suffering from acute pain in the side. Abdominal palpation revealed a moderately sensitive tumor in the right hypochondrium which was distinctly movable; examination otherwise negative. Believing it to be a movable kidney, I ordered her prepared for operation the following morning. As was the custom before all anesthesia operations, I examined the urine the next morning, and found it contained a large quantity of bile. I again examined the patient, and found her jaundiced, but free from pain, and no tumor could be detected.

It is therefore easily understood why a distended gall-bladder is here mentioned first in a differential diagnosis. The range of mobility of the kidney is general, while a distended gall-bladder can only be moved around in a very small circle, and if pushed backward immediately springs up to the abdominal wall; it moves with respiration; no tympany can be elicited between it and the costal margin, and there would be dullness over the renal area if the kidney was in place. The presence of jaundice, bile in the urine or clay-colored stools would aid in the diagnosis. The examiner should not be satisfied with finding a distended gall-bladder, though, as it and a movable kidney are often associated, the former secondary to the latter.

If the tumor was an ovarian tumor or cyst, its nature would be determined by vaginal examination.

A tumor of the mesentery, or a parasitic, uterine fibroid, or impacted feces, might resemble a movable kidney in every respect, except that in a favorable subject it would be possible by palpation and percussion to detect the kidney in its normal location. A careful history would here be of great assistance in determining the cause of the tumor.

The acute, sickening pain and collapse of an extrauterine pregnancy may simulate very closely a Deitl's crisis from movable kidney; here a careful menstrual history, and the finding per vaginam of an exquisitely sensitive tumor near the uterus would reveal the true cause of the symptoms.

Palliative Treatment.—This consists in the adjustment around the abdomen of some mechanical appliance with an idea of supporting the kidney. Goelet[9] says he has discovered that the straight front corset is a typical kidney support; he also suggests that it is very appropriate to treat a fashionable ailment with a fashionable corset. A pad may be

so fitted within the corset that it will increase the efficiency of this garment as a kidney supporter. Some special device as a truss or padded binder may also be tried; but whatever is used should be properly adjusted each morning before the patient assumes the vertical posture. This method of treatment has only proven successful in a small number of cases.

Operative Treatment.

Reasons for Operating.—Goelet[10] mentions the following which I think are worthy of consideration. 1. When the kidney has descended below the last rib anteriorly it has an abnormal mobility which is not conducive to good health, though it may produce no intolerable symptoms at first. 2. The position interferes with the normal flow of urine from the kidney. 3. The circulation and function of the kidney are interfered with and secondary changes occur in it. 4. The ureter when the kidney descends presses on the ovarian vein and causes more or less venous stasis in the organs it drains. I would add to these that we should operate for pain; severe reflex, nervous or gastrointestinal symptoms; to prevent secondary changes in the kidney; and always if the patient is anxious to have it done. That a movable kidney ever went back to its normal location and remained there is very doubtful; so forced feeding of the patient to increase the perirenal fat will not effect a cure.

When to Operate.—I believe the argument on this point is in favor of early operation in every case; that is as soon as the diagnosis is certain and the patient can be prepared for operation. It may be necessary in some cases to include a week of rest and tonic treatment in the preparation. If palliative treatment is persisted in until secondary changes have occurred in the kidney and other organs and the patient becomes debilitated an operation may then be hazardous and the result unsatisfactory.

How to Operate.—It is interesting to observe the various operations which have been devised with the idea of correcting this condition, and it can almost be said that every surgeon, general and gynecic, has had a method of his own. I will state briefly a few of these methods, and you will note the ingenuity displayed and the gradual advance in surgical technic which they mark.

In 1881 Hahn, the father of nephrorrhaphy fastened the kidney up by the fatty capsule. Henry Morris passed kangaroo tendons through the kidney substance. Senn carried gauze around the lower pole of the kidney, thus slinging it in place, and also packed gauze around it to excite inflammation and granulations. Deaver[11] and Biodi[12] advocated the gauze method because, as they said, though it prevented primary union, the suture method did also because urine leaked out. This was because they passed their sutures through the renal tissue, thus forming renal fistulæ. This was the beginning of the first advance, namely, the abandoning of sutures through the kidney substance.

Pean sewed a strip of lumbar fascia across the fatty capsule, making a bridge over which he hung the kidney. Ichachner opened the lumbar fascia, placed the lower half of the kidney outside the fascia between the muscles. Beyea[13] passed rubber tubes around the kidney and out of the wound to hold it in place until union occurred. Noble[14] passed silk worm gut sutures through the fibrous capsule and tied them outside the fascia. He closed the wound without drainage, leaving in the silk worm gut sutures. Goelet[15] passed silk worm gut sutures through the fibrous capsule out through the skin and tied them over gauze. He also packed the lower angle of the wound to excite granulations and to drain. Andrews[16] did what he termed a reefing operation. He brought the fatty capsule out on each side of the kidney, fastened it between the muscles, and closed without drainage.

These methods still being unsatisfactory, the next step forward was characterized by some form of a capsule-splitting operation. Sir Frederick Treves advocated that as firm adhesions never formed between the fibrous capsule and the surrounding tissues, some operation of splitting this capsule was necessary if uniformly good results were to be expected. Another said that experimental study had shown that the fibrous capsule was itself not capable of proliferating to aid in the formation of adhesions. Robert Morris[17] dissected back an ear-shaped flap from the fibrous capsule, and this he passed through and sutured to the psoas muscle. Lanphear[18] made two cuts in the fibrous capsule crossing each other at right angles. The four points of capsule thus made were dissected back, a suture passed through each, and these in turn he passed up through the fascia. He also pulled the peritoneum up around the kidney and sutured it there. Vulliet detached from above a strip of tendon from one of the spinal muscles, passed this beneath the capsule, up through the muscle, and sutured it there. Byron Davis[19] split the capsule and sutured it together again over a strip of muscle from the quadratus lumborum. Mariani[20] resected the twelfth rib, leaving the periosteum behind; this he passed beneath the capsule and sutured to the muscles in the eleventh and twelfth inter-spaces.

To Edebohls[21] of New York belongs the credit for the most classical operation so far produced. He directs that the operation shall be done in the following manner: "Place the patient prone upon the table with an air cushion underlying and supporting the abdomen. Make a straight incision along the outer border of the erector spinæ from lower border of last rib to crest of ilium. Should the space between the rib and ilium be unusually narrow, carry the incision a little more obliquely, so that its lower end will reach the ilium slightly to the outer side of the attachment of the erector spinæ.

"Bluntly separate the fibers of the latissimus dorsi from each other just over the outer border of the erector spinæ, without opening the sheath of the latter. Split the transversalis fascia and expose the peri-

renal fat. Draw the iliohypogastric nerve to one side or other out of the way of injury. If this cannot be done and the nerve must be divided, reunite the severed ends with catgut after anchoring the kidney and before closing the wound. Open the sheath of the quadratus lumborum from rib to ilium along the anterior aspect of its lateral border. The retraction of the cut edges of the sheath will expose a large area of raw muscle. Free the kidney as far as necessary by blunt dissection with the fingers, aided by an occasional clip of the scissors.

"Deliver the kidney with its fatty capsule through the wound onto the back. Traction upon the fatty capsule, aided by rolling the patient upward or downward, as may be necessary, on the air cushion, facilitates this part of the procedure. The upper pole of the kidney generally, though not always, emerges first, the rest of the organ following. Should the opening through the walls of the abdomen prove too small for delivery of the kidney, enlarge it by nicking the outer fibers of the quadratus near its iliac insertion. Dissect off and remove the whole of the fatty capsule, exposing the capsule proper throughout its entire extent. Explore by palpation the kidney, its pelvis and the upper end of the ureter. Should anything be found to indicate puncture or incision, this is the proper time to perform either. Nick the capsule proper of the kidney near the middle of the convex border just sufficiently to admit the tip of a grooved director. Pass the director through the opening and on beneath the capsule proper, between the latter and the kidney, and upon it divide the capsule proper along the entire length of the convex border of the kidney to half way around both the upper and lower poles of the organ. Separate the capsule proper by blunt dissection on either side of the incision from the kidney substance, and reflect it forward and backward toward the renal pelvis to about midway between the external and internal borders of the kidney. This will leave denuded one-half of the kidney, more or less, the detached portion of the capsule proper being continuous with the still attached portion and turned back upon it like the lapel of a coat. Resect a portion of the detached capsule proper if too redundant.

"Pass four suspension or fixation sutures of forty-day catgut through both the reflected and still attached capsule proper, close to their line of junction. Two sutures are placed on the anterior face of the kidney, one at the middle of the upper and one at the middle of the lower half of the organ. The two other sutures are placed at corresponding points of the posterior surface of the kidney. Each suture runs parallel to the long axis of the kidney, and is passed through the reflected capsule close to the line of reflection, then through the underlying attached capsule, and along beneath the latter between the capsule and the kidney substance, for a distance of two or three centimeters, when it again emerges through the attached and reflected layers of the capsule. Use a Hagedorn needle, with the broad surface running flatwise between the

capsule proper and the kidney substance, to avoid penetration of the latter. Pass the kidney with the eight free suture ends hanging from the capsule proper back into the body. Pass each suture end in succession through the abdominal parietes from within outward, four to the inner and four to the outer side of the incision, each suture piercing the tissues at a distance from its fellow of the opposite surface equal to the antero-posterior thickness of the kidney. The sutures to the inner side of the incision will pierce the retracted sheath of the quadratus near its edge, the quadratus itself, the erector spinæ and the latissimus dorsi; the outer sutures will traverse the transversalis fascia and the latissimus dorsi. All of the sutures will emerge upon the surface of the latissimus dorsi at distances from each other equal to those at which they leave the capsule proper, the highest suture ends emerging immediately beneath the twelfth rib. Leave the sutures untied for the present.

"Close the wound of the muscles and fascia by from four to six interrupted sutures of forty-day catgut, passed in such a manner as to turn the raw surface of the quadratus toward the kidney. This is effected by suturing the latissimus dorsi and the lumbar fascia forming the outer lips of the wound to the latissimus dorsi, the sheath of the erector spinæ and the outer lip of the open sheath of the quadratus at the inner margin of the incision. Gently draw taut the eight ends of the fixation sutures to take in slack between the internal surface of the abdominal parietes and the capsule proper, so as to bring the denuded surface of the kidney into contact with the raw surface of the quadratus. Tie the two ends of each of the four suspension sutures to each other. Bury the suspension and muscle sutures by closing the skin over them with the intracuticular suture. The completed operation will leave the denuded convex surface of the outer half of the kidney in snug contact with the raw quadratus lumborum throughout the entire length of the latter from rib to ilium, the upper pole of the kidney projecting slightly upward beneath the ribs, and the lower pole reaching to an equal extent below the level of the iliac crest. Apply the dressings across the entire width of the back, smoothly and evenly, remembering that the patient is to lie upon them for a week before changing."

The advantages of this method over the gauze-packing operations are: (1) The wound is closed without drainage, and there are no painful dressings; (2) the patient does not have to remain in bed so long; (3) there is less danger of post-operative infection; (4) the kidney is fixed by primary union instead of by granulation. That the adhesions from primary union are the stronger is shown clearly in laparotomies, where the surgeon never drains if he can avoid it, because of the danger of subsequent ventral hernia. (5) In a clean operation like a nephrorrhaphy no method which necessitates the leaving of an open wound to

be packed, if it may be avoided, can justly be termed a twentieth century operation.

The advantages of the Edebohls method over those which do not split the capsule are: (1) As pointed out, the fibrous capsule of the kidney is not capable of proliferating even if scarified, and the adhesions supplied by the other tissues are so weak that unless a permanent suture is used, the organ is very likely to get loose again—while with this operation the adhesions are produced in three ways: *first*, by primary union of the reflected capsule with the tissues of the loin; *second*, by union of the denuded kidney cortex with the raw quadratus muscle; *third*, there is always more or less oozing from the kidney parenchyma after the wound is closed; this blood being for the most part confined around the kidney, will form a clot; fibrous tissue will grow in, organize it, and thus furnish another source of adhesions. (2) It decapsulates the kidney, which is recognized as a good operative procedure for renal congestion, and more or less of it is always found when the capsule is opened.

The operation is not difficult, and the mortality only a little over one per cent.

Report of Cases.

I am indebted to Dr. Barton Cooke Hirst, of Philadelphia, for the privilege of assisting him in operating on the following two cases, and at this time for the privilege of reporting them:

Case I.—Miss E. P., age twenty-nine, single, school teacher, native of Philadelphia.

Present Illness.—Began one year previous to operation, at which time she noticed that she kept her right shoulder higher than the left, and that while sitting in school she would often lean toward the left side and stretch her right side; she said that doing this made her more comfortable. Ten months later she was suddenly taken with pain in the right side, simulating appendicitis, which lasted for a few days; this attack was followed by subacute pain and the sensation of something moving in the side.

Examination showed the right kidney on line with umbilicus, and freely movable. Dr. Hirst catheterized both ureters and tied the catheters in to collect the urine pure from each kidney. In two hours the right kidney excreted 2 fl. drms., and the left 3 fl. oz.; both specimens were normal.

Operation.—February 9, 1903, by Dr. B. C. Hirst, assisted by Dr. W. F. Sprenkel and myself. Lumbar incision made and kidney suspended by Edebohl's method. Convalescence uncomplicated. Discharged March 3d.

Case II.—Miss E. R., age twenty-five, single, stenographer, native of Philadelphia.

Present Illness.—For fourteen months has had a dragging pain of

varying intensity in the right side of the abdomen; never nauseated; pain radiates to groin.

Examination showed right kidney freely movable down to pelvic brim.

Operation.—June 6, 1903, by Dr. B. C. Hirst, assisted by Dr. W. F. Sprenkel and myself. Lumbar incision; right kidney suspended by Edebohl's method. One week later, when I redressed the wound, I found it had healed nicely. On palpating the abdomen I found a mass about 4x3 inches in size just above Poupart's ligament on the right side. It was movable to a limited degree. I asked Dr. Hirst to see her also, and he diagnosed it a hematoma. Examination one week later: The mass was only half as large and higher up than before. One week later she was discharged, free of symptoms, and the mass nearly gone.

In a recent letter from Dr. Hirst he told me that both patients reported at his office in September, 1904, being, respectively, nineteen and fifteen months from the date of operation, to let him know how well they were. He said they had been entirely relieved of their symptoms by operation.

Case II also writes me that in the two months following her operation she gained twenty pounds, and has been in the best of health ever since.

It was at the request of Dr. R. A. Kerr, of this city, that I kept the histories of the following cases, and that I have written this paper. I am therefore indebted to him for this privilege and for his kindness in allowing me to assist him in the following operations:

Case III.—Mrs. L. F., age thirty-two, married, Peoria, five children, last one born two years ago.

Previous Medical History.—Measles at five years; no other illness except tonsilitis.

Present Illness.—She dates her trouble from the birth of her first child. Her symptoms have been headache, backache of a dragging nature, with occasional attacks of sharp pain across the upper abdomen; some indigestion; no constipation; is inclined to be despondent at times.

Examination.—Patient a well-built, well-nourished woman, who says she never has been thin; weight, 141 pounds; right kidney easily felt, and freely movable on right side of abdomen.

Operation.—September 14, 1904, at Cottage Hospital. Essentially the Edebohl operation. The kidney was enlarged, being 15 cm. (six inches) from pole to pole; it was markedly congested; capsule adherent, and when stripped back there was free bleeding from the parenchyma, which was controlled by the application of hot towels; no other complications; convalescence uncomplicated.

Case IV.—Miss E. B., age twenty-eight, single, Peoria, stenographer since sixteen.

Family History.—Two brothers died of nephritis.

Previous Medical History.—Measles and whooping cough in childhood; no other illnesses.

Present Illness.—For five years has suffered from headache, backache and a dragging pain in the abdomen; capricious appetite; nervous indigestion; palpitation and polyuria; chronic constipation; patient says she has carried the right shoulder higher than the left ever since trouble began, and that she could feel a movable lump in her abdomen by palpation.

Examination.—Small woman, rather thin (says she was heavier before trouble began); kidney easily felt, and freely movable in the right upper quadrant of abdomen.

Operation.—September 24, 1904, at Cottage Hospital; Edebohl's operation. Kidney not enlarged but congested and capsule adherent. Convalescence uncomplicated. Patient kept in hospital longer than three weeks, in order to treat her for nervousness.

Case V. Mrs. M. S., age forty-three, married ten years, no children, no miscarriages.

Previous Medical History.—Ordinary diseases of childhood; then well until present illness began.

Present Illness.—Five years ago, after doing other hard work, she was cutting grass with a heavy scythe when she felt something jump in the right side; though it caused her no pain it worried her and she stopped working. The next time she bathed, while rubbing her abdomen she could feel a movable lump in the right side, but as it was not painful she did not consult a physician at that time. Since then she has suffered from attacks of headache ending with nausea and vomiting; a dragging sensation in the abdomen, never very painful; palpitation of the heart; and has never been able since then to lie on the left side without having pain in the right side.

Examination.—Fleshy, well built, well nourished woman; right kidney movable to pelvic brim and median line.

Operation.—October 1, 1904, at Cottage Hospital; Edebohl's operation. Kidney slightly enlarged, capsule tight and adherent, cortex congested and bulged out on splitting capsule. On reflecting the capsule, owing to the adhesions, there was considerable oozing of blood from the kidney substance; this soon stopped on the application of hot towels. Convalescence uncomplicated.

Discussion of Cases.—I do not think that present day writers honestly believe that repeated pregnancies, lacerated pelvic floors, external violence, or long wasting diseases are usual causes of movable kidney. It is another example of how one writer copies from the other, possibly fearing he will be criticised if he does not include all the old miths.

Harris[32] has reported some very interesting work on a large number of cases, to try to discover the relation of body conformation to this affection. He believes from his investigations that a congenital or acquired

harrowing of the middle zone of the body is the greatest predisposing cause.

You will observe in the few cases I have reported to you that only one of the five women ever had a child, and that none of them ever suffered from a long illness. Case V gives an interesting history, and it would seem that in her case the kidney was dislodged by severe contraction of the muscles of the back; though this was likely the exciting cause, I believe there were predisposing causes, likely in body conformation, enteroptosis, or something of that nature. Owing to the close attachment of the duodenum and hepatic flexure of the colon with the anterior surface of the kidney, it would appear that descent of these portions of the intestine would be an important factor, and it seems to me that this, plus the weight of the liver, is the only relation of tight-lacing to the occurrence of movable kidney. The kidney is so deeply placed that constriction alone could hardly displace this organ; but it could push down the other viscera, which would in turn either press or drag down the kidney. Case I shows the effect of prolapse on the function of the kidney; in a given time the normal one secreted three fluid ounces of urine, while the other one only secreted two fluid drachms, or one twelfth the amount of the one in normal position.

The great increase in the size of the kidney noted in case III may have been a result or a cause of its descent; I should think the former.

REFERENCES.

1. Goelet: Amer. Jour. Surg. and Gyn., August, 1901.
2. Bacon: Amer. Jour. Surg. and Gyn., February, 1899.
3. Beyea: Amer. Jour. Surg. and Gyn., September 21, 1901.
4. Osler: Practice of Medicine, page 847.
5. Hirst: Diseases of Women, page 566.
6. Bacon: Amer. Jour. Surg. and Gyn., February, 1899.
7. Deaver: Annals of Surg., June, 1899.
8. Tyson: Practice of Medicine, page 734.
9. Goelet: Amer. Jour. Surg. and Gyn., August, 1901.
10. Goelet: Jour. A. M. A., November 7, 1903.
11. Deaver: Med. News, February 17, 1900.
12. Biodi: N. Y. Med. Jour., August 4, 1900.
13. Beyea: Amer. Med., September 21, 1901.
14. Noble: Jour. A. M. A., November 7, 1903.
15. Goelet: Jour. A. M. A., November 7, 1903.
16. Andrews: Jour. A. M. A., October 6, 1900.
17. Robert Morris: Amer. Jour. Surg. and Gyn., February 1900.
18. Lanphear: Amer. Jour. Surg. and Gyn., April, 1901.
19. Byron Davis: Jour. A. M. A., May 15, 1902.
20. Mariani: Gazzetta degli Ospedalia (Milan) Vol. XXV, No. 91.
21. Edebohls: Annals of Surg., February, 1902.
22. Harris: Jour. A. M. A., June 1, 1901.

CLINICAL REPORTS.

ABDOMINAL SYSTOLIC MURMUR.

By W. J. Calvert, M. D., Columbia, Mo.

ASSISTANT PROFESSOR OF INTERNAL MEDICINE, UNIVERSITY OF MISSOURI.

The patient, a colored woman, fifty-one years of age, was sent to Parker Memorial Hospital by Dr. C. W. Jones of Murry, Mo. Past history is unimportant; history of present illness unsatisfactory. During the past ten years patient has had an occasional atack of vomiting, usually at night, associated with more or less pain in region of stomach and liver. Shortness of breath at night has been marked, of late sharp pains in stomach have been rather severe and associated with more or less fever.

Physical Examination.—The vessels of the neck pulsate markedly and on the right side, especially on coughing, there is a very large dilatation of the jugular vein.

Thorax.—The two sides are equal, movement equal; the pulsation of the heart extends through the entire front of the thorax and the upper half of the abdomen.

Palpation.—Vocal fremitus is the same on both sides. The maximum apex beat cannot be definitely fixed. The pulsation of the thoracic wall is diffuse, wavy and forcible. An intermittent thrill can be felt during one or more heart-beats at the apex, then at the base of the heart on the left side, later over the tricuspid area. A marked systolic thrill is constantly felt over the aortic valve. Distinct systolic pulsation of the liver can easily be felt; no other pulsation observed, save in the systemic arteries. Lungs slightly hyper-resonant.

Heart.—The upper area of heart dullness began in the upper portion of the second intercostal space, and extended toward the left to the mid-axillary line, which in this case was 15 cm. from the mid-sternal line. To the right the heart extended 6 cm. from the mid-sternal line. The area of absolute heart dullness was greatly enlarged.

Auscultation.—The breathing sounds in both sides are harsh, rough, increased in frequency, expiration longer than normal. On inspiration numerous moist rales are present throughout both lungs.

Heart.—In the aortic region a loud, rough, short systolic murmur can be heard. This murmur was not transmitted to the large arteries. The second aortic sound was replaced by a loud, long drawnout diastolic murmur. At the apex a murmur was present, but its nature was impossible to determine, supposed to be mitral insufficiency on account of its transmission to axilla. A systolic murmur at tricuspid valve was also present, but it was impossible to differentiate it from the systolic murmur heard in the mitral region. The pulse was distinctly that of aortic

insufficiency. The arteries at the wrist are thickened. Diagnosis at this time—broken compensation following aortic insufficiency and probable mitral and tricuspid insufficiency, hypertrophy and dilatation of the heart, arterio-sclerosis of the arch of the aorta and general arterio-sclerosis. The patient was put to bed and given tincture of digitalis, 15 minims every three hours.

Subsequent Development.—Rapid improvement in the condition of the heart took place and on April 9th all of the lesions could be easily made out. On this date the lungs had cleared up, breathing sounds were easier, not so rough, and all of the rales had disappeared. There was a short rough systolic murmur in the second interspace at the right of the sternum, associated with a distinct thrill in the same region. The second aortic sound was very short, accentuated and metallic in character. Almost entirely replacing the second sound a murmur of aortic insufficiency was noted. This murmur was blowing, loud and amphoric in quality, and extended through about seven-eighths of diastole. It was best heard at the left border of the sternum on a level with the third rib, was transmitted down both borders of the sternum and toward the apex of the heart, where it was gradually lost and replaced by a systolic mitral murmur which was soft in character, loud and transmitted to the left scapular line. Down the right border of the sternum the diastolic murmur gradually diminished and was replaced by a loud systolic tricuspid murmur which was best heard over the lower end of the sternum. This murmur was transmitted through the vein to the neck, where it was easily heard, to the liver over which it was easily heard, and to all parts of the abdominal wall. The systolic mitral and tricuspid murmur could be easily differentiated the one from the other and from the diastolic murmur in the aortic region.

Liver.—The liver dullness extends from the sixth rib to about four fingers below the costal margin; its lower border could be easily felt and palpated. Two distinct pulsations could be felt in the liver. First, the transmitted impulse from the heart. Second, an expansile pulsation of the liver, due, most probably, to a back flow of blood from the right heart.

The marked loudness of the systolic murmur which can be easily heard anywhere on the wall of the abdomen was probably due to the enormous lesion of the tricuspid valve and is, so far as I know, quite uncommon.

This murmur was different in character from the systolic murmur often heard over the arteries in cases of aortic insufficiency. Ordinarily murmur heard in the vessels of the lower extremities are not transmitted to the abdominal wall.

After six days in the hospital the heart was 13 cm. to the left of the mid-sternal line and 4 cm. to the right, giving a reduction in the transverse dimension of 4 cm. The pains in abdomen, right side, radiated to

the right shoulder, were probably due to the distension of the liver and stretching of its capsule. The shortness of breath was not so noticeable and patient was fairly comfortable. The systolic murmur could not be heard so well as previously over the abdomen.

The accompanying chart,* made with the same instrument (the lever of practically the same length and the drum moving at the same speed), shows the variations in the pulse-wave at the wrist. On April 7th a characteristic Corrigan pulse with high amplitude and low tension is observed. Under rest in bed and digitalis the amplitude is seen to diminish and there is an increase in tension associated with a decrease in the pulse rate. After eighty-four hours' treatment the pulse-beat is

fairly normal, save the high-arm due to insufficiency. Twenty-four hours after the digitalis has been withdrawn the insufficiency character of the pulse is increased. The increased dilatation of the left heart and the lower blood tension are also seen. Both factors are compensated in another twenty-four hours' rest.

Diagnosis is general arterio-sclerosis, especially in the arch of the aorta; sclerosis of the aortic valve causing aortic insufficiency which was

*Chart was made from sketch, as original tracings were slightly effaced in the mail, and could not be reproduced.

associated with the marked mitral and tricuspid insufficiency; œdema of the lungs, pulsation and distension of the liver, and a marked systolic murmur transmitted the entire abdominal wall.

In the chart Fig. 1 represents the pulse tracing twelve hours' digitalis treatment; Fig. 2, thirty-six hours; Fig, 3, sixty hours, and Fig. 4, eighty hours, after which digitalis was discontinued. Fig. 5 shows pulse tracing twenty-four; Fig 6, forty-eight hours after withdrawal of digitalis.

FOREIGN BODY IN THE TRACHEA.

By L. P. Pollmann, M. D., St. Louis.

About three weeks ago Dr. J. F. V. Krebs and myself were hurriedly called to see a little boy of two years, who, while seated at the table and amusing himself with buttons, pins, and sundry articles, was suddenly seized with an attack of choking. The mother stated that while in a room adjoining she heard the child scream, and rushing to its assistance, found it very much agitated, cyanotic and breathing heavily.

The little chap having enjoyed perfect health up to this very moment, and no throat disease being discernible, the natural presumption was that some obstructing agent must have entered the air passages from without, and it was probably to be found in one of the various playthings the child had been toying with at the table.

The gravity of the condition was explained to the mother, and immediate operation advised, which was readily accepted. A tracheotomy above the isthmus of the thyroid gland was done, because it was held that the larynx as well as trachea would be equally easy of access through an incision in that locality. At the moment the tracheal wound was drawn asunder for subsequent instrumental exploration, a small brass rod shot up into it from below, evidently carried along by the expiratory current. It was easily extracted, and proved to be quite a stout scarf-pin two inches in length, and carrying an ovoid head 7 m. m. in diameter. Free respiration was re-established at once, the mucous membrane of the trachea presenting a normal appearance. The wound was closed immediately and a dressing applied.

Recovery was complete eight days thereafter, when the sutures were removed and the patient discharged.

Considering the large size of the pin's head, the diameter of which corresponded with that of a trachea (lumen, of course), two years old, it is certainly to be wondered at why the obturation of the windpipe did not become complete at the moment of entry of the foreign body and terminate the youngster's life abruptly.

The trachea of the child is frequently found to widen as it approaches the bifurcation, and this factor, in connection with prompt surgical interference, no doubt determined the very gratifying result achieved in our case.

EDITORIAL COMMENT.

THE IMMEDIATE CIVIC DUTY OF ST. LOUIS PHYSICIANS.

It is well understood by those whose acquaintance with American cities enables them to make just comparisons that the city of St. Louis has failed in many respects to keep pace with the march of municipal progress. The Louisiana Purchase Exposition served to impress numerous lessons of good municipal housekeeping, and thereby the public has come to have a better appreciation of just what are St. Louis's most glaring shortcomings. It seemed probable that the time had arrived when the citizens would be willing to increase the tax rate for the purpose of supplying the various municipal needs already provided for by other cities. To this end the proposition authorizing the issuance of $9,000,000 worth of bonds was submitted to the people at the election in April. Although requiring to carry two-thirds of the total number of votes cast, it did not receive even a majority. The reasons for the failure are not far to seek. In the first place the citizens of St. Louis have always proved reluctant to tax themselves for public improvements. The example of New York, which has gone deeply in debt to provide parks, the subway, etc., and indeed the example of all American cities which have undertaken projects looking to the convenience and health of their citizens, does not appeal to our people as one to be unqualifiedly followed. In the second place, the bond proposition as submitted to the people included a number of projects. It was proposed to devote a certain sum to the erection of new public buildings; another, to the laying of sewers; still another to the construction of a magnificent boulevard connecting the city parks; still another to the erection of new municipal hospitals, and the enlargement of others already in existence. Although these projects varied greatly as to necessity and desirability, they were conjoined in such a manner that an affirmative vote meant concurrence with one and all, and *vice versa*. It is hardly to be wondered at that the thoughtful and independent voter resented being asked to cast a single ballot on the question of providing funds for these unrelated projects, and showed his resentment by casting a negative ballot.

One who has made a careful study of the local situation cannot escape the conviction that the paramount municipal requirement is for new municipal hospitals. The citizens of St. Louis are fairly well acquainted with the deficiencies of their hospitals, but it is doubtful if they fully realize how utterly inadequate they are to present requirements. Perhaps the worst feature is the overcrowding which exists and has existed for many years. Rarely, if ever, has the bed capacity been equal to the hospital population. The writer recalls vividly the conditions which he observed in the colored surgical ward of the city hospital. This is a

room approximately 18x50 feet, opening on a corridor at the eastern end and provided with two windows at the western extremity. Single iron beds are ranged along the northern and southern walls. On several occasions the writer has seen two negroes occupying each bed, a third wrapped in a blanket beneath the bed, and a fourth occupying a cot between adjoining beds. Could there be a sadder or more shameful commentary on a city's indifference to the rightful claims of her poor citizens whose dire necessities compel them to seek her hospitality?

In the light of these facts every local physician, who aspires to be at the same time a good citizen, has a very obvious duty to perform. He should embrace every opportunity to acquaint those with whom he comes in contact, both professionally and socially, with the shameful conditions of our city hospitals. He should expound his conviction that the paramount municipal need in St. Louis is for new hospitals; he should endeavor to show that compared with this need other municipal requirements are trivial. Thus will be created an overwhelming public sentiment in favor of municipal hospitals, which in time would give rise to a demand that future bond propositions should be subdivided into as many component parts as there are separate projects, in order that the imperative and pressing need for new municipal hospitals might no longer be unfulfilled.

THE MEDICAL EDITORIAL.

Medical journals are in the habit of devoting a certain amount of space in each issue to what must be taken as an expression of the journals' views on topics of medical interest. It might be of some benefit to determine just what purpose these editorials are supposed to serve and how near they come to doing so.

In editorial writing the personality of the writer is hidden behind the larger collective personality of the paper in which the editorial appears. This is its strength and the weakness. Editorials commonly deal with three classes of subjects. The purely medical and technical are the most frequent; here a supposedly objective opinion is expressed upon some paper dealing with an investigation of some new research or discovery. Local questions of medical interest form the next most common text of the editorial and lastly are the subjects that touch medicine directly or indirectly taken from the larger experience in the life of the community or from the nation.

Of the first sort there is not much to be said, for the reason that between it and an abstract there is little real difference. Criticism of a medical contribution, pure and simple, loses its value the moment the author's name is withheld. The essence of criticism of this kind lies in the worth we are accustomed to attach to the critic. Evidence of special knowledge on the special subject criticised is demanded. The obvious discrepancy in medical editorials of this sort lies in the fact that the

journal does not express its own opinion for by a queer development of medical journalism it is in possession of none and represents none. It must be apparent that the reason for editorials of this nature does not exist.

On the other hand, there seems to be a real need for editorial writing dealing with subjects in the second and third classes. This need is more acutely felt than filled. In the complexity of the present day civilization, medicine is taking at least two methods of developing; on the one hand, as a part of the educational force and on the other, as a part and a necessarily vital part of the effort to increase the nations' power by increasing their physical vigor and ability to withstand contagion of all sorts. In other words, medicine appears in two aspects, as a branch of knowledge, pure and simple and as a part of civic activity. It is in these two aspects which editorial writers might find proper subjects to write about and to develop the necessary skill in presenting the ideas inspired by the subject in a proper editorial way.

MEDICAL AND SURGICAL PROGRESS.

INTERNAL MEDICINE.

IN CHARGE OF

JESSE S. MYER, M. D.

Microscopic Examination of the Fasting Stomach Contents and Its Diagnostic Value.—ACKERMANN and GOMPERTZ (*Medical Record*, No. 1,796, 1905,) call attention to the importance of a microscopical examination of the fasting stomach contents in making a diagnosis of diseases of the stomach. The contents are spread out upon a white plate and suspicious particles are selected and examined. When normal gastric juice is present we may find the nuclei of partially digested leucocytes and epithelial cells, isolated yeast cells and myelin bodies. The fact that the leucocytes and epithelial cells are changed indicates the presence of pepsin and hydrochloric acid. Abnormally, we may find, when there is no stagnation and no hydrochloric acid, leucocytes and epithelial cells that are unchanged, and possibly pus, blood, mucus, myelin bodies and sometimes infusoria. Not disturbing the motility, this condition would indicate carcinoma. When there is stagnation with hydrochloric acid, it would indicate either a benign obstruction or ulcus carcinomatum of the pylorus, and the findings would be food remnants, sarcinæ and yeast cells and possibly blood cells. With stagnation and without hydrochloric acid, the Oppler Boas bacilli, yeast cells branching and the absence of sarcinæ, indicate cancer. When mucus is present its origin can only be ascertained by a microscopical examination. If pavement epithelial cells are present in large numbers, the mucus comes from the upper digestive tract, while the occurrence of a great many cylindrical epithelial cells is positive evidence of its origin from the gastric mucosa. Of protozoa, two varieties have been found in the stomach, the trichomonas hominis and the megastoma entericum. They are readily recognized by their motility and by their peculiar characteristic shape. For the development of infusoria four conditions are necessary: (1) Absence of hydrochloric acid; (2) presence of alkaline reaction; (3) absence of stagnation; (4) existence of pouches or deep folds of the gastric mucosa. Cohnheim maintains that the presence of infusoria is pathognomonic of cancer, not affecting the motility, and that their presence may be determined long before a tumor can be felt.

Chronic Pneumonias of Patients Suffering from Heart Disease.—D. ROTHSCHILD (*Berliner Klinische Wochenschrift*, No. 13, 1905,) maintains that chronic heart disease has a tendency to increase the power of resistance against tuberculosis of the lungs, especially in cases of mitral stenosis, causing a pulmonary hyperemia, but that it is a predisposing factor in all forms of pneumonia. The impaired circulation produces interstitial changes in the lung tissues, which further retard the circu-

lation and affect the parenchyma. The conditions most frequently met with are persistent chronic bronchitis, due to lowered vitality, chronic induration, areas of anemic infarction, when embolism is present, areas of thickened pleura, due to localized pleurisy, fibromatosis, etc.

The Esophagoscope in the Dilatation of Cicatrical Stenosis of the Esophagus —REIZENSTEIN (*Muenchener Medizinische Wochenschrift*, No. 12, 1905,) advocates the use of the esophagoscope in cases of stricture of the esophagus. Dilatation of the stricture, as a rule, is very difficult, and often the cicatrix is in such shape that the instrument is directed away from the lumen of the stricture. He recommends that if after several attempts we fail in passing a small, cone-shaped English bougie, we should resort to the esophagoscope and the accompanying set of esophageal sounds and drainage tubes. After passing a small-sized sound successfully, a drainage tube is left in the tract for a few hours, after which it is removed. From time to time larger tubes are passed until recovery is complete. Great care must be exercised not to use undue force, so as to avoid injuring the tissues. Their use has saved patients from undergoing an operation.

Injuries to the Kidneys.—HABS (*Muenchener Medizin. Wochenschrift*, No. 13, 1905,) reports a case of rupture of the kidney without hematuria. He calls attention to the fact that absence of blood, pus or albumen in the urine does not necessarily speak against injury to the kidneys, and states that we may be justified in making that diagnosis when, after a fall or an injury in the lumbar region, there is immediate shock, accompanied by severe pain on the affected side, the pain radiating to the lower abdomen, bladder, testicles and rectum, a marked decrease in the excretion of urine, vomiting, tenderness in the abdomen and contraction of the recti muscles on the affected side.

SURGERY.

IN CHARGE OF

WILLARD BARTLETT, M. D.

The Expectant Treatment of Appendicitis and Excursion Into the Field Between Surgery and Medicine.—BERNAYS (*Medical News*, February 25, 1905).—This article has attracted more attention than any other recent contribution to the clinical surgery of this subject for the reason that it distinctly shows the author's extensive experience to have been absolutely at variance with ideas which had become pretty well fixed in the minds of many surgeons. This is particularly true as far as the Ochsner treatment is concerned. Instead of treating the early inoperable case with opium, etc., Bernays advises purgation and seems to have been equally as successful, to say the least, as have the adherents of the opposite school. Of course it is to be clearly understood that an operation is the only rational treatment where the patient is seen early in the at-

tack, but when this favorable period is past then Bernays considers it little less than a crime to use drugs which lock up all the poisons by stopping secretions and excretions. The writer is very caustic in his treatment of the surgeon and of the pathologist who removes a normal appendix and then attempts to prove that it is diseased. From a historical standpoint the author's comparison of Spencer Wells and Lawson Tate is decidedly interesting, and especially is this true in view of the fact that Bernays was perhaps the first American surgeon to lay sufficient stress upon the evil of using morphine after laparotomies in general. The author's operative experience has not taught him that a dose of salts will drive intestinal contents out through a perforation in the appendix, hence he does not see herein a reason for not purging a patient who is about to be operated upon. Indeed, he decides that an operation if done on such a patient gives a much better outlook than if the sufferer has been treated by the opium splint method. Bernays very rightly concludes that statistics do not prove much in this connection since they are so susceptible to juggling.

Enchondroma of the Tongue.—ROUTIER (*Bulle. et Mem. de la Soc. de Chir. de Paris*, April 11, 1905).—The victim of this extremely rare malady was a woman twenty-one years of age. About four years ago she noticed an enlargement on the right side of the tip of the tongue; this gradually increased until the present time. Of course a definite diagnosis was only possible after an excision of the mass had been made. The tongue was sutured after the tumor had been removed and healed as kindly as a wound in any other part of the body could have done. The operation is too recent for a report as to definite cure.

A Contribution to the Treatment of Diffuse Suppurative Peritonitis.—CLAIRMONT and RANZI (*Archiv. fuer Klinische Chirurgie*, Band 76, Heft 1 and 2).—This report naturally carries with it considerable weight, when the fact is taken into consideration that it embodies more than three years' work of the first surgical clinic in Vienna. The disease resulted from a variety of causes, perforations of the appendix, stomach, duodenum and gall bladder being chief among them. In appendix cases with peritonitis the author's custom is to remove the offending organ and drain with gauze. Twenty-five of the cases were of this sort and ten recovered. When operating for perforation of the stomach it is advised that we make a fistula as high as possible in the gut in order that the patient may be fed through the same. In all, there were forty-one cases treated and fifteen of these recovered. Emphasis is laid upon the value of flushing the abdomen with large quantities of salt solution, most of the cases having been treated in this manner. The custom was, in all cases, to make a large median incision, unless it was possible to locate the disease definitely to some other portion of the abdomen. Great stress is laid upon the value of gauze drainage, something which has outgrown its usefulness in the United States, to say the least. These drains wers left in place three or four days as a rule. It seems strange that the German writers still persist in ignoring American surgeons in articles of this nature; here is one of more than sixty pages in a leading German publication, full of suggestions, which are considered obso-

lete by American surgeons who can show results far better than those exploited in the article from the Vienna clinic.

A New Procedure for the Radical Cure of Inguinal Hernia.—ROCHARD (*Gazette Hopitaux*, April 18, 1905).—The most excellent procedure detailed in this article, one which American surgeons will be surprised to find labeled "new," consists in an overlapping of the tissues as originally proposed by Andrews of Chicago. The author's method of overlapping the different layers differs in one particular from the original composition of Andrews, however, and is identical with the Halsted operation, as published in 1903; that is, the cremaster muscle is brought up behind the internal oblique, and then the latter is brought down to Poupart's ligament, after which the upper flap of the aponeurosis is made to overlap the lower one. All of these authors, who have written upon this subject, seem to have placed their deep sutures through the ligament and from the inside. It remained for Dr. John Young Brown of this city to suggest and practice the very simple matter of inserting mattress suture through the ligment from the outside, and thus draw down and anchor the internal oblique muscle much more securely than can be done in any other way. This method was suggested by Dr. Brown at a meeting of the Missouri Valley Medical Society in March of this year, with the statement that he had been practicing it about one year previous to that time. There is one point of particular interest in Rochard's article, and that is with reference to enlarged veins found in the canal. He does not agree with Halsted that these cause the hernia and should be removed; on the other hand he suggests that the pressure of the hernia may cause the enlargement of the veins, and that they will subside spontaneously after the rupture has been cured.

Resection of the Middle Third of the Stomach for Carcinoma of the Greater Curvature.—SCUDDER (*Annals of Surgery*, May, 1905).—The author remarks that the seat of the disease is uncommon, as is this form of operation. The patient was a woman thirty-seven years of age, who had been well until very recently. She had lost very little weight. The tumor could be felt in the middle line and did not involve the large bowel, so clamps were placed above and below it directly across the long axis of the stomach, and after the vessels had been ligated and the tumor cut away, the two free ends thus formed were reunited by an interrupted Connel suture. The patient made a rapid recovery and ten months after the operation is free from recurrence of the disease. The steps of the operation, as well as the structure of the tumor, are all illustrated by most beautiful cuts.

A Case in Which the Entire Face Was Torn Away.—KACOSI (*Beitraege Zur Klinische Chirurgie*, xvi Band 2, Heft).—The subject of this most unusual and shocking injury was a woman fifty-four years of age. She was standing on a step ladder lighting a street lamp, when the ladder, which happened to be resting on ice, slipped from under and her chin caught on a hook, with a result that the weight of her very heavy body was sufficient to tear off her entire face from below upward, as she fell. A physician, who happened to be in the vicinity, ligated the

bleeding vessels, applied a temporary dressing and sent her at once into the clinic at Heidelburg. "The next day her face was sent in by mail." The lower jaw bone was torn out of its sockets and remained with the face, as did all of the soft parts as far as the eyes, including the lower lids, the nose and a small portion of the forehead just over the roof of the latter. The patient had to be fed through a tube. Life was maintained without much trouble until the expiration of eight weeks, when healthy granulations had appeared everywhere. Skin grafts were now applied everywhere with perfect success, but the salivary glands had to be removed on account of there being no place for their secretion to go except upon the skin, which was greatly irritated by it. A photograph of the patient taken just before she left the hospital, shows something like a human face. By dint of much practice the patient has finally learned to swallow semi-solids, and is able to talk fairly well, although this was hardly possible at all for some time after the injury.

Apropos of Carotid Aneurisms.—MENDES (*Revue de Chirurgie*, April, 1905).—The author excised two of these tumors successfully and gives the histories of the two patients, whom he was able to send home in a very short time after operation. He states that the chief objection to this form of treatment has come from those who supposed that it was very difficult to remove such a mass without causing too much injury to surrounding tissues. He has found that this statement holds good only in very old cases, since strong adhesions do not form very early. The author goes at considerable length into the discussion of the results of ligation of the common carotid, stating that the brain symptoms may be transient and disappear altogether. The operation is much simplified and rendered invariably safe by a preliminary ligation at the central end of the tumor.

HYGIENE.

IN CHARGE OF

A. E. TAUSSIG, M. D.

Food Preservatives and Food Adulteration.—H. W. WILEY (*St. L. Med. and Surg. J'l.*, 1905, No. 4).—At a recent meeting of the Philadelphia County Medical Society the chief of the Bureau of Chemistry of the United States Department of Agriculture read an interesting paper with the above title.

We have many food preservatives which have been in use since the earliest times, the usual condimental preservations and substances which reveal themselves to the consumers by their odor and taste, such as common salt, sugar, vinegar and wood smoke. Their established use is well recognized, and no legislation has forbidden the use of such preservatives. There is another class of preservatives, known as antiseptics; and in the quantities in which they are used they have neither taste nor odor, so that their presence is unknown to the consumer unless stated to him.

One of the abuses against which a successful fight is being waged is the artificial coloring of food products. The coloring of butter, which once was almost universal, is becoming much less so. Farmers are slowly learning that their customers prefer uncolored butter, and will pay a higher price for it. Oddly enough, this is much less true in the south than in the north. The further south one goes the deeper the people want the color of their butter. Why a high temperature and a desire for high color in butter should go hand-in-hand is not clear, but the fact remains. The use of copper sulphate in canned peas and beans is even more universal and less defensible. Copper sulphate is used not only as a coloring matter, but as a mordant, in order to intensify and fix in the tissues of vegetables their natural green color. Without its use the color of peas and beans fades after a certain time, even though they be kept in the dark. Our new food law, while by no means perfect, will aid in the prevention of this abuse. Since the second of February we require that all food products entering this country artificially colored shall bear a label so stating, without asking in any case that the material for coloring be declared, except in the one case of the copper sulphate, which is not solely a coloring matter, but also a mordant.

The writer's experiments have convinced him that all antiseptics in foods are injurious and unnecessary. Probably the least harmful of those in common use is borax, and yet the writer's experience with his "poison squad" has shown that the use of borax in quantities of half a gram a day and extending over a period of fifty or sixty days is distinctly deleterious to health.

Sulphurous acid is found largely in foods, especially in desiccated fruits which are subjected to the fumes of burning sulphur to retain their color. It is also used to preserve wine, and is produced by burning sulphur in the casks. There is no way of preserving the natural color of dried fruits except by fumigation with sulphurous acid. Whether that is justifiable or not is another question, but it is a practice which appears to be universal, and the same is true of the burning of the sulphur match in the barrel in wine-making, a practice which has come down from antiquity. But when sulphur is employed, as at the present time, in an enormous excess for preserving a poor wine and putting on the market a new wine before it has ripened it is unpardonable.

Our new law gets around the difficulty of deciding what preservatives are deleterious and what not very ingeniously. It says that any food product not allowed to be sold in the country in which it is made shall not be allowed to come to the United States. On that ground we have sent back several cargoes of German sausage containing borax, and on arriving at the German frontier they are inspected and rejected, and, like the "Flying Dutchman," are still sailing over the sea seeking a port, a haven of rest.

The Medical Inspection of Public Schools.—Wm. S. Chase (*The Cleveland Med. J'l.*, 1905, No. 2).—The general subject of medical inspection of schools naturally groups itself under three heads:

First, and possibly the point on which most stress is generally laid, the detection and isolation of communicable diseases.

Second, the enforcement of sanitary surroundings.

Third, the detection and direction of the "physically unfit."

Boston stands first in the list of American cities to institute a medical inspection of schools, the first appropriation for that purpose having been made in 1892. The methods followed there are in brief as follows:

Inspectors are generally selected from the younger men in general practice, as they have the most time to devote to the work. The work has nothing to do with therapeutic systems, but requires simply the ability to make accurate diagnoses. The number of pupils in Boston schools is about 100,000. There were, when this report was made, 250 school buildings and fifty inspectors. This gives each inspector the supervision of about 2,000 children. The pay is only $200 a year. Children, if found ill, are not allowed to consult the inspectors professionally, but are directed to their family physicians, or, if poor, are referred to a proper hospital. An association of the inspectors has been formed, and regular meetings are held to discuss questions pertaining to their work. The inspector sees only those children to whom his attention is called by a printed slip on which the teacher has noted the symptoms she has observed or the complaints which the child has made. On each child's slip he records his diagnosis and advice. Questions of drainage, plumbing, heating and ventilation are not considered by the Boston inspectors, but are referred to special experts of the board of health.

In New York the inspectors are also obliged to visit the homes of pupils absent for several days without excuse. These visits, from November 2, 1903, to May 12, 1904, resulted in the detection of 890 cases of contagious disease not reported. In no case does the medical inspector prescribe drugs; that is looked upon as the distinct function of the family physician.

Detroit's experience with medical school inspection is interesting. The experiment was tried in 1902. No funds were available with which to pay inspectors, and volunteers were called for. The number of schools first inspected in February of that year was four, in March twenty-six more were added and in May the total was increased to fifty. In the four and one-half months of that school year 10,554 examinations were made, and 914 exclusions resulted for the following cases:

Scarlet fever	11	Impetigo	24
Diphtheria	1	Whooping-cough	19
Tonsillitis	314	Chickenpox	79
Measles	78	Pediculosis	151
Mumps	128	Other diseases	117

The writer hopes that at no distant day every town in the country may have its board of medical inspectors, sanctioned by the board of education and under the direction of the executive officer of the board of health. He would have these inspectors give general attention to the sanitary surroundings, the detection of contagious diseases and the discovery of any defect militating against the health or future progress of

the child, always being careful not to usurp in any way the province of the family physician.

The Fight Against Malaria Near Rome.—G. GALLI (*Muench. med. Wochenschr.*, 1905, No. 6).—The attempt to root out malaria, that curse of the Roman Campagna, is being persevered in by the Italian government with constantly increasing energy. The government itself manufactures quinine and sells it at a nominal price to the inhabitants, so that the poorest need not hesitate to make full prophylactic use of it. This, together with the nearly universal use of screens and mosquito netting, has resulted in a marked diminution of the prevalence of malaria. Genuine cases of malaria are almost becoming a rarity in the local hospitals, and in the largest one, that of Santo Spirito, no case of pernicious malaria has been admitted within the past two years, whereas formerly an average of four or more came to autopsy annually. The recently adopted agrarian laws have the same end in view, and aim at the cultivation of all waste land and at improved drainage of the surface water. For this purpose the government lends the necessary capital to the land owners at extremely favorable rates. For the first five years they have only to pay the interest (2½ per cent.); thereafter the debt is slowly to be paid off in forty-five annual installments. Obstinate land owners, who refuse to make the necessary improvements, are forced to part with their property, which is then sold to those who will carry out the provisions of the law. As a result of all this a marked improvement of the country-side is already noticeable. Formerly all the peasants were forced to leave the low country during the malarial season and to take refuge in the hills, so that one could travel for hours by rail without seeing a human being, and Rome might truly be called an oasis in the midst of a desert. Now permanent homes are springing up everywhere in the Campagna, the desperate poverty of the Roman peasant is becoming a thing of the past and it will apparently not be long before the Campagna will again be dotted with villas and prosperous farms as in the days of the early Roman Empire.

THERAPEUTICS.

IN CHARGE OF

WALTER BAUMGARTEN, M. D.

Treatment of Gout.—SCHMOLL (*Jour. Am. Med. Assoc.*, April 29, 1905, p. 1,348).—Assuming on experimental grounds that in all probability uric acid exists in the circulating blood of normal individuals in combination with thymic acid, Schmoll shows experimentally that in gout at least some of the uric acid in the circulation remains uncombined with thymic acid, and that it is formed synthetically from the paranucleins which in normal individuals do not increase the uric acid excretion. This uric acid which exists in the circulation uncombined with thymic acid is not excreted by the kidneys and is responsible for the gouty disturbances. The writer has treated thirty cases of gout on the basis of

these experiments. The excretion of uric acid is constantly increased during this medication, the increase varying from 0.17 to 0.42 gr. in twenty-four hours, but subsiding in about ten days. This the writer explains by saying that in that period all the uncombined uric acid has been excreted and the quantity of daily excretion returns to its former level because the daily increment of uncombined uric acid is too small to be estimated by our analytical methods. The dose of thymic acid is 3 to 4 grains given three or four times a day. When the dose is much larger than this inflammation is produced in local deposits of uric acid which subsides in about forty-eight hours. In a few cases the thymic acid produced gastric disturbance. The heart and kidneys remained uninfluenced even by the larger doses. Ordinarily the patients feel unusually well, motion in affected joints becomes easier and swelling decreases. In the only acute attack treated, the pain and swelling disappeared completely within six hours.

The Use of Creosote in the Treatment of Pulmonary Tuberculosis.—TAYLOR (*St. Paul Med. Jour.*, April, 1905), makes a vigorous plea against the use of creosote, and points out the harm which it frequently does the patient in disturbing the alimentary tract and thereby destroying his main defence against the disease, viz., the ability to assimilate a maximum quantity of food. It is a caustic in its action, is, even in the best preparations, not uniform in composition and is objectionable both in odor and taste. The contention of its advocates that creosote stimulates appetite and acts as an intestinal antiseptic is weakened by the fact that this stimulation is secured by an irritation of the gastric and intestinal mucous membrane, and can be produced without the irritation by a much safer class of drugs—the bitter tonics; the same may be said of its antiseptic action in the intestines. The claim of an antiseptic action in the tissues is futile. In the first place the tubercle bacilli lie in areas (the tubercles), in which there is the minimum of circulation, even of tissue lymph. Secondly, it has been repeatedly shown in an experimental way, that animals injected with tubercle bacilli and treated with creosote, die as quickly as their controls.

The Treatment of Hyperacidity and of Gastric Hypersecretion.—ALBU (*Therap. d. Gegenwart*, p. 153, April, 1905) prefaces his article with the statement that the treatment of hyperacidity should take into consideration all causal factors, and that when it develops or is associated with a neurasthenic condition the general treatment is of utmost importance. The hyperacidity itself is to be met by dietetic measures in the first place, and only under urgent necessity by medicinal treatment. The time-honored proteid diet has in many cases proved inadequate, as, though it combines with the free acid, it also stimulates its secretion. Selected vegetable fluids, carefully prepared, are less stimulating and may be made unirritating. All uncooked vegetables and fruit should be excluded, as well as those which contain much cellulose, especially hulls and skins. The vegetables of the latter sort may be given in the form of purees, in which the objectionable parts have been removed. Purees have the added advantage that they dilute the acid gastric juice. Starches may be employed to advantage provided they be very finely

divided; thus graham bread and rye bread should be avoided. But the fine wheat breads, especially in the form of toast, zwieback, cakes and crackers, may be of decided advantage. A meat diet is of course to be permitted when otherwise suitable. The only form of food which is uniformly badly borne is fat. This should be avoided, with the exception of small quantities of fresh unsalted butter, and small quantities of pure olive oil, given alone. Sugar is badly borne by many patients. Of liquids, milk, cocoa and chocolate are usually well taken.

In general, meals should be small in amount and at frequent intervals in order to supply substances to combine with the superfluous acid.

In severe cases, Albu suggests lavage late in the evening three to four times after the last evening meal, or early in the morning. At the end of each lavage an alkaline solution or mineral water may be introduced and left in the stomach; or a suspension of burnt magnesia in a solution of sodium bicarbonate may be used. Most effective is a combination of belladonna with alkalies, as may be seen in the following prescription:

Ext. balladon	0.3
Bismuth subnit	
Magnes. ustae	
Sod. bicarb. aa	10.0

To be given in doses of half teaspoonful one to two hours after the principal meals.

In hypersecretion it is important to reduce the quantity of fluid ingested, in order to avoid as much as possible additional distension of the already atonic stomach wall. When it is desirable to give milk, this may be boiled down to half its volume. Solid food should be given in well prepared, but thick purees. Nourishment should be given in very small quantities, at intervals of one to two hours. The choice of foods should be that suggested for hyperacidity. The accumulated gastric juices may be removed by the stomach tube late at night or early in the morning before food is taken.

PATHOLOGY AND BACTERIOLOGY.

IN CHARGE OF

CARL FISCH, M. D.

About the Resorption in the Kidney.—W. LINDEMANN (*Ziegl. Beitr. z Pathol. Anat.*, vol. xxxvii, Heft 1).—So far no evidence has been brought forward for the resorbing capacity of the kidney, that means for the assertion that the filtrate of the glomeruli on its course to the pelvis is concentrated within the tubuli. Lindemann's experiments show that such a resorption does not exist. By injecting through the ureter staining solutions or olive oil, he found that the fluid could be pressed up high into the tubuli, according to the degree of the momentary amount of urine present in the latter. If the pressure is too great the fluid causes mechanical lesions and penetrates into the tissues between the canaliculi,

thus eventually reaching the other kidney, and wrongly representing a resorption from the tubuli. If, however, the pressure of filtration by the glomeruli is equalized by a careful regulation of the pressure used in the injection, so that the filtration is stopped, after the old theory the volume of urine within the tubuli ought to recede and the injected fluid ought to rise higher within them. This, on the contrary, does not occur, according to the author's experiments, and he, therefore, concludes that a resorption by the urinary tubules does not exist.

Investigations About the Toxin of the Dysentery Bacillus.—H. LUEDKE (*Centr. f. Bacteriol.* vol. xxxviii, Heft 3).—So far it has been asserted that it was possible to obtain from dysentery bacilli by autolysis, or from a filtrate of heated cultures, a toxin of considerable efficacy. Similar findings were made by Rosenthal, who used bouillon cultures three weeks old. Luedke has attempted to demonstrate the existence of a toxin by using the method of McFadyen. He reduced to dryness bacilli grown on agar, poured liquid air over them and reduced them to a powder by manual pressure. An emulsion of the powder was filtered through a pukal, and he thus obtained a sterile solution, of which 0.1 to 0.05 c.m. caused the death of a rabbit in forty-eight hours. The autopsy of the animals revealed no specific lesions. No antitoxin production was found. The author infers from his experiments that in all of the so-called toxins of the dysentery and typhoid bacilli thus far prepared, the nature of the substances as real toxins has not been established, but that they always represented an endotoxin, only able to give rise to the formation of amboceptors and agglutinin.

Red-Leg. An Infectious Disease of Frogs.—HAVEN EMERSON and CHARLES MORRIS (*The Journal of Exp. Med.*, vol 7, No. 1).—An epidemic disease that occurs among frogs in their native habitat as well as in captivity, where it often causes in laboratories the loss of the majority of the animals confined (in St. Louis, too, it has been observed) has been the object of a very clever study of Emerson and Morris that, practically, has resulted in effective means to preserve intact the stock of these batrachians, often so precious. Here, we shall only refer to the general results of the investigations.

The disease is caused by a bacillus, frequently found—the bacillus hydrophilus fuscus, and is widely distributed over North America and Europe. It is observed mainly during September and October, at least in this country, characterized by congestion of the ventral surfaces of the body; it leads to ulceration of the skin, excessive serous exudation, paretic conditions, coma and death. The blood always shows an advanced degree of anemia and leucocytosis. The bacillus destroys the red corpuscles, and great laking of the blood, the presence of many nuclei, great diminution of the number or almost total absence of the red corpuscles are in proportion to the severity of the infection. By inoculating frogs, the authors have shown that while temperatures a little above freezing have no harmful effect upon the frogs, they completely control all manifestations of disease in inoculated or diseased frogs, if the latter are left in the cold for a period as long as seven days; and, further, that even short periods of exposure to cold will bring about a delay of the

fatal results in diseased or inoculated animals. Predisposing causes are mainly lesions of the skin, which in most cases seem to be the point of entrance. Besides this, anemia and very high temperature favor the infection. In this respect it is interesting that many of the sick frogs were infected with other parasites that directly destroyed red corpuscles, but in no case interfered with life. The bacillus is very toxic and virulent for guinea-pigs, but not for rabbits. The directions given for the proper keeping of the frogs, and for the prevention of the disease, will be valuable for many laboratories.

The Question of Latent Tuberculosis.—A. WEICHSELBAUM and J. BARTEL (*Wien. Klin. Woch.*, No. 10, 1905).—Neither the location nor the degree of a tuberculous condition allows of a reliable inference as to the way in which the tubercle bacilli entered the organism. For the elucidation of this problem the authors have resorted to investigations on latent tuberculosis. They examined lymphatic glands and tissues from children dying with other diseases but tuberculosis, and the organs of which did not show at autopsy any tuberculous changes. The method was the animal inoculation that in a number of cases resulted positive. It seems to follow from this that living tubercle bacilli have penetrated into the lymphatic glands and have kept alive there, at least for a certain time, without giving rise to specific tuberculous tissue changes. The existence of a latency in tuberculosis must be assumed, although the material is as yet too scanty to allow of a theoretic utilization of wider range.

A Study of the Bone Marrow in Typhoid Fever and Other Acute Infections.—WARFIELD T. LONGCOPE (*Bull. Ayer Clin. Laborat.*, Pennsylvania Hospital, No. 2, 1905).—The very careful and important work of Longcope on the changes of the bone marrow in infectious diseases will open a new field of study for many much discussed hematologic questions. Here, only the general results that he obtained can be outlined. In typhoid, the marrow shows constant and definite lesions, that closely resemble those going on in the mesenteric glands and spleen. They are characterized by the presence of many lymphoid cells, large phagocytes, and by foci of necrosis. There is present more or less hyperplasia of the blood-forming cells. In differential counts of the marrow cells constantly a marked relative increase of the lymphoid cells over the granular myelocytes was seen. In croupous pneumonia and several other acute pyogenic infections, the tissue showed also constant changes, differing widely from those found in typhoid. There was more or less marked hyperplasia of the blood forming cells with a pronounced relative increase of the granular myelocytes over the lymphoid cells. No foci of necrosis were found and no phagocytic cells. Bone marrow, in some cases of chronic nephritis, and one case of gall bladder carcinoma did not show any deviation from the normal condition. It is from these findings, as the author says, highly probable that the lesions of the bone marrow in typhoid and pneumonia are at least nearly related or directly responsible for the hypo- and hyperleucocytosis occurring in these conditions.

GYNECOLOGY AND OBSTETRICS.

IN CHARGE OF

HUGO EHRENFEST, M. D.

Maternal Impressions.—J. PLAYFAIR MCMURRICH (*Physician and Surgeon*, January, 1905).—The author gives in this article the status of the problem of maternal impressions in the light of most advanced scientific thought. After giving a short historical sketch and a very clear resume of the views of modern embryologists the writer concludes this most readable article as follows:

The position that we have reached then, is that while a belief in the view that emotional disturbances of the mother may affect the embryo is justifiable, the theory of maternal impressions, to the effect that maternal emotions may produce a definite and determinate abnormality corresponding to the emotion, is, to say the least, improbable. The grounds for this opinion are briefly as follows: (1) There is no definite relation between the occurrence of the cause and the effect. (2) The evidence of the theory is very largely *post factum*, and all attempts to obtain *ante factum* evidence have resulted negatively. (3) The supposed cause has acted in many cases at a time long subsequent to that at which the abnormality could have arisen. (4) No plausible means for the transmission of the cause to the embryo has as yet been discovered. (5) All abnormalities can be explained on the basis of known physical forces inhibiting or modifying the normal processes of development, and there is no reason for calling into existence an unknown psychical force. (6) The fact that the theory demands a definite and determinate response to the stimulus puts it quite out of harmony with the results of modern investigations into the causes of embryonic differentiation.

Treatment of Eclampsia by Parathyroidine.—VASALE (*Rivista crit. di Clin. Med. rev. Am. Jour. of Obstetr.*, May, 1905).—The writer describes a specially strong extract of the thyroid gland, prepared by the Institute for Sero-Therapy at Milan. He used it with success in three cases of eclampsia. He calls this extract parathyroidine or parathyreo-antitoxine, because it seems to have an antitoxic action against the still unknown cause of eclampsia of pregnancy. The effect on the convulsive seizures was most remarkable. The author inclines to accept as the cause of these convulsions a theory of the toxins resulting from changes in the thyroid body. He has used this extract in the case of a classic tetanus in a baby, with good result, and has treated three cases of epilepsy, with the effect in two of modifying the convulsions. The author prefers to withhold an opinion as to the efficacy of the extract in epilepsy.

The Spontaneous Rectification of Position of a Retrodeviated Uterus.—KLEINWAECHTER (*Zeitschr. f. Geb. u. Gyn.*, Vol. 54).—The writer observed in 376 cases of retroversion-flexion fifty-one times a spontaneous correction of the abnormal position. That a uterus may go back into

anteversion has been known, but the literature on the subject is meagre and practically no data were available as to the frequency of such an occurrence. The writer describes in detail the various forms and causes of retrodeviation and the factors which may lead to a spontaneous rectification of the faulty position.

Lack of Oxygen and Accumulation of Carbondioxid.—A. SCHUECKING (*Zentralbl. f. Gyn.*, No. 15, 1905).—Experiments made by the writer in the Physiologic Institute of Bern from 1897 to 1900 had proved two facts: firstly, that the automatic rhythmic respiratory movements of the living animal are evoked not, as was generally believed, by the lack of oxygen, but by the presence of carbonic acid; secondly, that not lack of oxygen but a pathologic accumulation of carbonic acid is responsible for the death from asphyxiation. These observations of the author have been ratified by other investigators. Experiments more recently made by Schuecking have demonstrated that in accordance with his claims that a normal amount of carbondioxid regulates, while an abnormal amount stops respiration, it is possible to revive asphyxiated dogs by means of intravenous injection of a solution of alkali-saccharate or alkali-fructosate. These experiments encouraged the author to use this method in six cases of deep asphyxiation of the newborn infant, all desperate cases in which he considered the fetal life lost. In four the therapy proved successful. In the last cases he used a 1 per cent. solution of natrium saccharate, 200 ccm. of which were injected into the umbilical vein. Natrium-fructosate should be used in a 2 per cent. solution which, however, must be prepared fresh.

PEDIATRICS.

IN CHARGE OF

ALFRED FRIEDLANDER, M. D.

Umbilical Cord Hernia.—GRIFFITH (*Arch. of Pediatrics*, March, 1905) says that hernia at the cord in infancy may be of two forms. The common variety is the acquired form, in which a portion of the intestine pushes through the rectus muscle, carrying before it the peritoneum and the tissues of the skin. The second form is that known as congenital hernia, or hernia into the umbilical cord. This form is comparatively rare. This consists in the projection of a portion of the intestine, or even more of the abdominal viscera, through an opening at the navel. This opening is the result of arrest of development of the abdominal walls. The hernia may vary in size from that of a nut to that of an infant's head. The hernial sac appears to be formed of the distended umbilical cord, the walls consisting of peritoneum and amnion of the cord alone. The contents are intestines, with the addition of all or part of the liver, stomach, spleen or other organs. When these hernias are of small size, recovery may take place spontaneously with the removal of the cord. A reactive inflammation takes place around the borders of

the hernia with cicatrix formation. Until the introduction of the radical operation, most of the cases died, and even now the mortality is large.

The diagnosis is easy except in the cases of small cylindrical hernia into the cord. Here it is easy to overlook the condition and apply a ligature to the cord, which, of course, ligates the intestine as well. Every child born with that portion of the cord which is next to the body decidedly swollen, should be examined very carefully before a ligature is applied.

The treatment consists in the greatest care in handling, and the use of every possible antiseptic precaution. Small hernias can often be reduced easily. If this be done, an antiseptic compress should be applied, held in place with adhesive plaster. The child must not be lifted to an upright position until the wound has cicatrized, though this may take weeks. For the irreducible hernia the author thinks that the best plan of procedure is to do the radical operation as soon as possible after birth. After the operation the temperature of the child should be maintained, preferably, in an incubator.

Streptococcus Agglutination in Scarlet Fever.—DETOT and BOURCART (*Rev. Mens. de Mal. de l'Enf.*, February and March, 1905).—The study of a serum diagnostic in scarlet fever presents a double difficulty, for there is not only the question as to the inherent specificity of the streptococcus as such, and its relation to scarlet, but also the difficulty in determining the actual agglutination of this germ.

There is still a good deal of diversity of opinion with reference to the relation of the streptococcus to scarlet. The majority of observers today incline to the belief that, though the streptococcus plays an important role, it is in reality a secondary role, in that the streptococcus induces a secondary infection in scarlet. This question the authors did not attempt to settle, their object being merely to study the direct question of streptococcic agglutination.

Their cultures of streptococci were obtained both from scarlet fever patients and from other streptococcic infections, such as empyema, erysipelas, etc. The sera were obtained both from scarlet fever patients and from children with other infections. Control sera from healthy children were also used. For the details of the experiments (including complete descriptions of method and technique) the reader is referred to the original. The conclusions reached are as follows:

While it is unquestionable that the streptococcus can be agglutinated, the fact remains that the agglutination is not as easily demonstrated as is the case with the typhoid bacillus, for instance. In certain cases the macroscopic method proved itself more valuable than the microscopic.

Agglutination of streptococcus obtained from scarlet fever patients by scarlatinal serum may be clearly positive, but the reaction is variable and inconstant.

Any serum, either a normal serum or a serum obtained from cases other than scarlet, may have an agglutinative action on scarlatinal streptococci. This power is decidedly variable and inconstant, and in a comparative series of tests was ordinarily distinctly weaker than the power

of a scarlatinal serum; but in some cases this discrepancy was not apparent.

Analogous experiments made with non-scarlatinal streptococci gave approximately similar results.

As a result of their experiments the authors do not feel justified in drawing conclusions as to the practicability of serum diagnosis of scarlet. Nor do the experiments justify a conclusion as to the question of the specificity of the streptococcus in scarlet.

Acute Pyelitis in Infancy.—FREEMAN (*Arch. of Pediatrics*, March, 1905) calls attention to the fact that this disease is frequently overlooked on account of the absence of local symptoms. It is probable that infection in these cases occurs through the urethra. The organism most often found is B. coli commun., so that the origin of the trouble is probably to be sought in primary lesion of the gastro-intestinal tract. As a matter of fact, many of the cases do follow intestinal disorders.

The clinical manifestations give no indications that the kidneys are the seat of the trouble. Irregular fever with remissions, often with chills and abnormal bowel movements, often form the clinical picture. The author reports a case of an infant of eight months running a course of twenty-two days, with high, irregular fever, digestive disturbance, and towards the end of the period, marked nervous symptoms, such as muscular twitchings and rigidity of the neck muscles. On the morning of the twenty-third day the author, who had seen the child for the first time the day before, made a urinary examination. The urine contained a large amount of pus, a few hyaline casts and a trace of albumen. Urotropin in half-grain doses was ordered. This medication was continued with intermission, on account of irregular heart action, for six days. Marked improvement occurred. At the end of this time citrate of potash was substituted for the urotropin. Thereafter the child continued to improve without remissions.

[In the discussion which followed the reading of this paper there was a consensus of opinion as to the importance of routine examination of the urine in very young children with continued high fever and digestive disturbance. Among other things Jacobi said: "If the urine is examined in every doubtful case, more cases of pyelitis or pyelonephritis will be found. I have not infrequently been called to see cases of protracted fever in which the unfortunate diagnosis had been made of malaria, and brief examination revealed either a pyelitis or a nephritis. This is a subject that is always being forgotten—that pyelitis is a disease frequently found in young infants. In every doubtful case, where there is fever, the urine should be carefully examined."—ED.]

ORTHOPEDICS.

IN CHARGE OF

NATHANIEL ALLISON, M. D.

Compound Traumatic Separation of the Lower Epiphysis of the Femur — GILBERT GEOFFREY COTTAM, M. D., Rock Rapids, Iowa (*Med. Rec.*, April, 1905).—The danger to life in these cases accrues from shock, gangrene, and infection. Considerable shock would be expected in an accident of such magnitude; in a series of fifty cases collected by Mr. Poland, six deaths were attributed to shock. Gangrene occurs in the cases where the popliteal vessels are injured, and is seen in about 25 per cent. of the cases; here early amputation is necessary to save life. Infection is present, as a rule, as the wound is an open accidental wound; everything here depends on the surgeon's ability to control the progress of the infection. The author reports two cases, one five and a half years and the second seven weeks after the injury. The injury in both cases was received by having the leg caught in the spokes of a revolving buggy wheel. Both were boys, aged respectively six and five years. In neither case was there injury to the popliteal vessels. In each case the diaphysis of the femur protruded through a wound in the biceps femoris and skin to the extent of about five centimeters, and the bone was stripped of periosteum. Treatment consisted in enlarging and cleaning the wound, reducing the deformity—it was necessary to resect a portion of the diaphysis—wiring to hold the corrected position, and holding the limb on a double incline plane till union was established. In the case in which five and a half years had elapsed since the injury there developed a knock-knee due to the unequal growth of the sides of the diaphysis, which growth produced a "bowing." This is demonstrated by skiagrams. Both cases made good recoveries.

Report of Two Cases of Suppuration of the Retromesenteric Lymph Nodes.—JOHN C. PEGRAM, JR., M. D., Providence (*Amer. Jour. Ortho. Surg.*, April, 1905). The diagnosis of hip disease is ordinarily an easy matter. In the early stages when the disease is just commencing a positive diagnosis is not to be made, and the differential diagnosis must be well considered. We must wait and treat symptoms for a time till, by the non-disappearance of muscular spasm, night cries, sensitiveness, etc., we can make a positive diagnosis. The author reports two cases that came to him each of which presented enough of the classic symptoms of hip involvement to warrant a provisional diagnosis of hip disease. These cases were put to bed and treated as are acute hips, *i. e.*, by traction on the Bradford bed frame. Under this treatment the flexion subsided and the hips became less sensitive; however, the temperature remained above 100, and there appeared an abscess in the left iliac fossa in each case. These abscesses were opened; a large amount of green pus evacuated, which showed pure growth of the streptococcus. After a time both cases entirely recovered. It is the author's opinion that

here he was dealing with streptococcus infection of the retromesenteric lymph nodes.

Report of Two Cases of Congenital Dislocation of the Shoulder Joint.—FRANK E. PECKHAM, M. D., Providence (*Amer. Jour. Otho. Surg.*, April, 1905).—This condition is comparatively rare, and but few cases have been reported. There is some discussion as to whether or not the condition is truly a congenital dislocation or a result of birth injury. In both the cases here reported there was no sign of paralysis due to nerve injury. One case was carefully tested by electrical currents, and reactions were present in all the muscles. Skiagrams of both cases showed the heads of the humeri to be out of their sockets. The symptoms were that the children could not raise their arms to their mouths; the arms hung down, rotated so that the back of the hand faced forward. They were both operated upon, the Phelps operation being employed. The humeral heads were returned to the glenoid cavities and the capsules of the joints stitched over them. The result was that the arms could be raised to the mouths. There seemed still to be considerable weakness, but this is disappearing. There seems to be no reason for this lack of muscular power. The author is of the opinion that open operation is not always necessary in these cases, that equally good results might be obtained by simple reduction and retention.

Notes on the Treatment of Torticollis.—G. HOHMANN, Munich (*Zeit. f. ortho. chir.*, Band xiii., Heft 1).—In women the location of the scar of operation is of sufficient importance to be considered. Located near the clavicle, it is liable to be seen, and thus be the cause of embarrassment. Lange has done many operations by dividing the muscle at its origin on the mastoid process through a small incision. The scar here falls behind the ear and is covered by the hair. All tight bands are divided; the head is overcorrected and placed in a plaster of Paris bandage for two weeks, then the position is held for a time by celluloid fixation appliance.

The Valgus Position of the Foot.—C. HUBSCHER, Basel (*Zeit. f. ortho. chirg.*, Band xiii., Heft 1).—Habitual pronation at the ankle joint is the cause, except in traumatic cases, of the valgus position, and the valgus position is the forerunner of the flat foot. The foot in the pronated position is out of the line of weight bearing; the cause of this pronation is insufficiency of the supinators, and this insufficiency results in turn from changes in the relation of body weight and the development of muscles, general constitutional weakness, or local weakness. The power of the flexor hallucis longus may be taken as an index of this insufficiency. In examining patients who complain of foot trouble it is well to have them stand on a table, and by the use of the plumb line determine the amount of valgus position. The plumb line will give the pronation angle; this should be corrected by a sole raised on the inside which will throw the foot into a corresponding degree of supination.

Apparatus for Correcting the Equinus in Clubfoot.—SCHULTZE, Duisberg (*Zeit. f. ortho. chirg.*, Band xiii., Heft 3).—This very simple little

apparatus consists of two small boards with a hinge. Supination being corrected, the foot is placed between the boards with the heel toward the hinge, sole against the upright board, back of leg against the lower. The upper is now forced toward the lower board and the foot thus forced into a position of calcaneus, where it may be secured.

Three Cases of Double Hip Dislocation, Supplemented by a Report of Seven Cases Operated on by Professor Lorenz.—A. J. STEELE, M. D., St. Louis (*Amer. Jour. Ortho. Surg.*, April, 1905).—The first case was one of double congenital dislocation in a girl aged seven. The child was brought to St. Louis from New Mexico in order that she might come under the treatment of Lorenz. She was a muscular child and presented such characteristic deformity that Lorenz used her at his clinic to show the typical walk, lordosis, etc. He did not attempt to reduce her hips, however, as the case seemed too hard. He advised traction and division of the adductors before attempting the reduction. This Dr. Steele did, and also reduced the hips, and reports an anatomical cure, verified by skiagrams. Case two was a case of double congenital dislocation with stable joints. X-ray showed new acetabula above the rudimentary normal ones. The case presented marked adduction deformity, which did not respond to division of the adductors and forcible abduction. Double Ghant osteotomy was done, and the lower fragments abducted. Result was non-union. It was necessary, then, to wire the bones, which was done with good functional results. Case three was a woman of forty-three years. Her right hip was displaced three years, and her left hip two years previously, without traumatism. The hips could be reduced without an anæsthetic. He made a pelvic belt for this woman, the belt having buttresses over the trochanters and being held down by perineal straps. The hips being reduced this belt is applied, the hope being to retain the femora in the acetabula. The result remains to be seen. Lorenz operated upon seven cases in St. Louis, three double cases, four single cases. Dr. Steele reports these in detail; his summary is as follows: Of the ten hips operated upon six have anterior displacements, two are in dorsal position, and two (same patient treated by Dr. Mueller), "are not in anatomic reposition."

NEUROLOGY.

IN CHARGE OF

SIDNEY I. SCHWAB, M. D.

The Curability of Early Paresis.—DANA (*Jour. American Medical Assn.*)—This paper of Dana's is sure to excite considerable comment. Its chief thesis, in the words of the author, is to present convincing evidence that paresis in its very earliest stages—in the stage which may be called praeparesis, is a disease that sometimes can be arrested. This arrest may be permanent and may be attended with so little mental defect that one may call the patient practically cured. Certain histories are given to support

these statements; some of them do not present the full fledged picture of paresis but present a clinical picture of those cases which are seen to develop a fully developed case of paresis later. The evident lesson of these histories is that it is of supreme importance to recognize a paresis before it becomes a real paresis. The treatment is in the main such a modification of the regular antisyphilitic treatment that can be readily adapted in any one's practice. The important thing is to remember that such a state exists in paresis and to be prepared to know it and to give the proper sort of treatment before it is too late.

The Nervous Diseases of School Children.—MEYER (*Berl. Klin. Woch.*, No. 17, 1905).—This is an interesting question from the point of view of one who has had exceptional opportunities to observe the frequency with which school children are affected with nervous affections. Eighteen hundred and fifty-seven children were so examined with the result that 130 were found to be affected, that is 7 per cent. In a material of 1,068 children, who had not attended school, 2.6 per cent. were found to be nervous. The author believes that the chief cause of the development of nervous diseases in school children, is to be found in an inherited tendency to which the school acts as an active awakening to this congenital defect.

Hysterical Mutismus in Connection with Hysterical Asthma Following Trauma.—STINTZING (*Deut. Zeit. F. Nervenheilkunde*, Band 28, No. 2 to 4).—Hysterical mutism is a somewhat rare variety of hysterical symptom and such cases ought to be placed in evidence when possible. This case relates to a woman twenty-nine years of age. The asthmatic attack followed a trauma. The speech defect was readily recognized, chiefly on account of its absolute completeness, without any other accompanying symptoms which a cerebral process so extensive would produce. Furthermore, the result of suggestive treatment made the hysterical cause of the symptoms evident.

The Location Within the Spinal Cord of the Fibers for Temperature and Pain Sensations.—SPILLERC (*Journal Nerv. Ment. Diseases*, May, 1905).—Many believe that the tracts of Gowers may contain the fibers for the sensations of pain and temperature, but evidence supporting those opinions has been sadly deficient. A man twenty-three years of age began to have pain in the lumbar region four months before he came under observation. Numbness was soon felt in the feet and gradually involved the lower limbs below the knees. Sensation for pain was almost abolished and sensation for temperature was diminished. At the autopsy, tuberculous meningitis and caries of the vertebræ were found, and a small tubercle was present in the right lateral column, at the extreme lower end of the thoracic cord involving the area of Gower's tract.

GENITO-URINARY SURGERY.

IN CHARGE OF

H. McC. JOHNSON, M. D.

A New Method for Righting Cystoscopic Images.—DENIS (*Ann. des Mal. des Org. Urin.*, April 1, 1905).—A piece of rough glass with the polished side covered with black varnish, except a circle corresponding to the field of the cystoscope, is employed. The circle is transversed in its antero-posterior diameter by a red line, with the red line parallel to the sagittal plane of the patient, the cystoscopic image is drawn with a pencil upon the rough side of the circle, care being taken to note the position of the index of the instrument and to trace a diameter on the circle corresponding to the situation of this index. With that done, it suffices then to turn the glass disk over and to pivot it about itself sufficiently for this index diameter to become parallel to the sagittal plane of the patient in order to have by transparency the exact reproduction of that which exists in the bladder.

The Position of the Kidney After Nephropexy.—GOELET (*Amer. Jour. Urol.*, April, 1905).—The contention that the position of the kidney after nephropexy is unimportant is an error. Fixation, without restoration to its normal position certainly does not facilitate restoration to normal action of the kidney, already crippled in consequence of displacement. It neither remedies the interference with its circulation and function coincident with the prolapse, nor does it afford entire relief of the symptoms. It is not the mobility of the kidney that causes disturbance, but its exaggerated downward displacement. On the contrary, fixation of the kidney lower than normal is more objectionable than mobility, for it is then in position where it will be compressed by the corsets or clothing constricting the waist and cannot escape as before. A kidney fixed in a low position cannot have any beneficial effect upon the associated nephritis. It is both undesirable and unnecessary to split or peel off the fibrous capsule. Restoration of the kidney to its normal position is sufficient to overcome the associated nephritis in these cases, due to the prolapse, provided permanent fixation is secured.

The unusually low position of the kidney results in congestion and inflammation, because the circulation is retarded in consequence of the lengthening and narrowing of the vessels supplying the organ and the necessary upward direction of the blood current in veins adapted to act normally on the level, and because there is interference with the outflow of the urine, which permits it to accumulate in the pelvis. The author reports 184 consecutive successful nephropexies. In his method of operating a verticle incision is made from the twelfth rib downward along the outer border of the erector spinæ muscle. The kidney is delivered through this incision, and the surrounding fat all around and the attached colon are completely detached, exposing the entire kidney. Sutures of silk worm gut, two in number, are inserted under the fibrous capsule only,one at the center of the kidney and the other midway be-

tween this and the lower pole. The kidney is then replaced and the suture ends are carried from within out and brought out upon the surface of the back at the upper angle of the incision, just below the twelfth rib, and are tied over a fold of gauze to prevent the sutures from cutting into the skin and consequent loosening of the loop. These sutures are retained in position until the patient is ready to get up, three weeks after the operation.

Diagnosis and Treatment of Tuberculosis of the Kidneys.—CASPAR (*Amer. Jour. Urol.*, November, 1904).—Kidney tuberculosis is as a rule primary, of hematogenous origin. Phthisis of the genital organs must be separated from that of the urinary tract. *Genital* tuberculosis begins in the epididymis, prostate or seminal vesicles and extends from here to the bladder. Tuberculosis of the *urinary* tract begins in the kidneys and at times descends to the bladder. By metastasis, foci from the sexual organs could be conveyed to the kidneys, and inversely those from the kidneys could be transplanted to the genital organs. It happens only exceptionally that the tubercular process ascends from the bladder into the kidneys. In numerous cases of tuberculosis of the kidneys, which have extended to the bladder, the second kidney remains free of tuberculosis, and it is conclusively proven that renal tuberculosis almost always *begins* unilaterally. In renal tuberculosis colicky pains, due to temporary occlusion of the urinary passages occur, which much resemble the colics observed with renal calculi. It is only in the late and far advanced cases that the patient's general appearance serves us as a guide. The urinary changes consist of the presence of pus, blood, microscopically or macrospically visible, casts, albumen, epithelia. Pus cells are hardly ever absent. For those cases in which tubercle bacilli cannot be found, we must bear in mind that the absence of all bacteria in cystitic urine is most suspicious. A certain importance may be attached to culture experiments upon ordinary nutrient media with urine from the bladder which has been taken by means of a sterile catheter. If the urine is tuberculous, nothing unusual grows. For absolute proof inoculation of the guinea pig, intra-peritoneally or subcutaneously, must be employed. Tuberculin reaction cannot take the place of inoculation, for it has been proven that the large majority of persons have tuberculous foci somewhere in the body without being tuberculous. That tubercle bacilli may be excreted through non-tuberculous kidneys does not hold, as it is only true if the patient is in an advanced stage of phthisis. As to whether the kidney or bladder is the seat of tuberculosis, we must not forget that in cases of pure tuberculosis of the *urinary* tract, in which the *genital* tract is sound, we usually have to deal with primary renal tuberculosis. When we come to decide which kidney is the seat of disease, the subjective symptoms of the patient help us to a certain extent. Renal palpation should not be lost sight of, but we dare not ascribe more to it than it offers, for some tubercular kidneys may be small and others, even though enlarged, not palpable. Nor does an enlarged kidney necessarily mean a diseased kidney; indeed it may be the relatively healthy one representing compensatory hypertrophy.

The cystoscope does not always present specific pictures in cases of

tuberculosis. There exists a cystitis and pyelitis granulosa which much resembles tubercular nodules. The ureter catheter is the most rapid and at the same time the most certain aid to diagnosis. The methods of refinement that we have for testing the functional capacity of the kidneys complete the finishing touches.

Inoperable cases usually die rapidly in the course of a few years. Those of renal tuberculosis, which might be, but are not operated upon, have a bad future. In the majority of cases the disease progresses in the organ itself, then leads to metastasis and finally extends, by continuity, to the ureters and the bladder. While this generally obtains, yet exceptionally the process may even be arrested.

The question of operation is difficult to determine in those cases with great weakness, fever and a very bad general condition. However, if there are only the expression of the localized renal tuberculosis, the operation is demanded. Diabetes, pronounced arterio-sclerosis, particularly of the coronary arteries, are contra-indications. A prerequisite for success is a good cardiac strength, together with a good kidney on the other side.

Statistics justify us in the gratifying hope that the more ureter catheterism and functional renal diagnosis obtain an entrance into the circle of physicians, the greater will be the prospect in the fight against renal tuberculosis, the greater the number of these sufferers we shall be able to save.

LARYNGOLOGY AND OTOLOGY.

IN CHARGE OF

WILLIAM E. SAUER, M. D.

On the Treatment of Tuberculosis of the Larynx with Phensosalyl.—DEMPEL (*Therepeutische Monatshefte*, April, 1905) reports his experience with phenosalyl (a combination of carbolic acid, salicylic acid, benzoic acid, citric acid, glycerine and etherial oils) in the treatment of laryngeal tuberculosis. Forty-six cases were treated by making direct applications of a three per cent. solution of the phenosalyl to the lesions in the larnyx after cocainizing the larnyx. In some of the cases the lesions readily healed after three to five applications, while in others the applications were made daily for a month or two. Little or no effect was obtained where there was much swelling and infiltration about the arytenoids, and the deeper the ulceration the more uncertain he found the effect to be. In some of the cases the hoarseness disappeared entirely and the lesions in the larnyx healed entirely, but the lung condition became progressively worse and the patients finally succumbed with a normal larynx. All in all the author believes phenosalyl to be a very valuable remedy in laryngeal tuberculosis. He reports in detail eight cases in which a complete cure of the laryngeal lesions were obtained.

Opening of Peritonsillar Abscesses.—THOMPSON (*British Medical*, March 25, 1905) gives the following rules for opening a peritonsillar abscess:

The site of election for opening the abscess is just external to the intersection of an imaginary line across the base of the uvula and another vertically along the anterior faucial pillar. The best instrument with which to open the abscess cavity is a pair of Lister's sinus forceps or a modification of the instrument as devised by the author. The blades are forced into the cavity and then opened widely and withdrawn, thus producing a vertical opening through which the pus escapes into the mouth. There is no risk of wounding any of the large vessels with this instrument.

Report on the Use of Stovaine.—C. G. COAKLEY (*Medical News*, April 15, 1905).—After briefly giving the properties of stovaine the author sums up his experience with this anesthetic in operations on the nose and throat as follows:

1. That stovaine as a local anesthetic is apparently equal to cocaine.
2. That the time necessary for acquiring local anesthesia is that of cocaine.
3. That it apparently does not contract the nasal mucous membrane to so great an extent as do similar solutions of cocaine. This is at times a disadvantage when the nasal passages are desired to be opened for more thorough inspection of the cavities; on the other hand, it is often times an advantage, as in snaring off redundant tissue by not too greatly shrinking it, and therefore making it more easy to remove.
4. Stovaine does not produce nearly so great a sense of constriction in the pharynx as that which is produced by cocaine. In this respect it has a decided advantage over cocaine, especially in those patients to whom the symptoms of constriction with constant desire to hawk and remove a supposed foreign body is very distressing.
5. Solutions of stovaine have a peculiar odor of fish, which has been annoying to some patients.
6. Some of the patients have complained that solutions of stovaine are more bitter than similar solutions of cocaine.
7. We have seen no toxic effects following the use of stovaine; there have been no secondary headaches or feeling of lassitude after the local anesthetic effect of the drug has disappeared. I am also of the opinion that the secondary swelling of the mucous membrane following the use of stovaine, is less than that which occurs when cocaine is employed.
8. It is but fair to say that during this period when cocaine was employed there was no case of marked cocainism. (For the sake of comparison in all cases where there were two operations done on the same person, stovaine was used on the one side and cocaine solutions of the same strength were employed on the other. Careful questions were asked of each patient to determine which was the better anesthetic and which gave the least disagreeable symptoms.)

Foreign Body in Larnyx.—HODLMOSER (*Wiener Klinische Wochenschrift*, No. 13).—The author reports a case of a foreign body in the larnyx in a boy eight years of age. There was no disturbance in the breathing until four days after the aspiration of the foreign body. The writer did not see the case until two days later, when the breathing had become very stenotic. An examination of the larnyx was attempted, but owing to

the peculiar shape of the epiglottis a good view of the larnyx could not be obtained. The arytenoids were found to be very much swollen and a foreign body could be seen lodged between the vocal cords. A triangular piece of bone whose sides measured about 18 mm. was removed with a Schroetter laryngeal forceps without the use of a local or general anesthetic. The case is interesting from the fact that a foreign body of that size could remain in the larynx for so long a time without producing any disturbance in so young a child. The author reviews briefly some of the cases of foreign bodies in the larynx reported by Schroetter, in which the foreign bodies had remained in the larynx as long as three or four months.

DERMATOLOGY AND SYPHILIS.

IN CHARGE OF

MARTIN F. ENGMAN, M. D.

Syphilis as Related to the Problems of Longevity.—JAMES NEVINS HYDE (*Medicine*, April, 1905).—The author concludes that (1) syphilis, like unmodified variola and tuberculosis, may destroy life. In its gravest expression, when not destructive of life, it may disfigure and mutilate the human body to a formidable extent. The disease should be counted among the dangerous scourges of the human family. Once in the presence of infection, neither physician nor patient can afford to neglect skilful, energetic and prolonged treatment, with a view to setting aside the possibilities of future danger. (2) In the case of inherited syphilis, the fatality, working destruction alike of ovum, fetus and infant, varies between 80 and 90 per cent. of the infected. The mortality, exceeding that resulting from any of the great plagues of the human race, is due to the unprotected condition of the embryo. (3) By reason of the absence of trustworthy statistics, the percentage of fatality in acquired syphilis, where the germ of the disease is implanted upon a previously sound organism, cannot be accurately determined. Estimates based upon clinical records furnished in the larger cities of the United States, coupled with the facts detailed in the volumes of vital statistics published by the United States census bureau, make it appear probable that the fatality in such acquired disease is represented by less than 2 per cent. (4) The fatality in acquired syphilis results less often from the active invasion of the disease than from the entailed loss of resistance, by reason of which common agencies of disease produce serious effects, especially in the nervous system. (5) The efficient factors in the production of these effects are fairly well understood. They include chronic alcoholism, long-continued tobacco-narcosis, extreme fatigue, severe affliction, the malnutrition that may result from poverty and the stress and strain endured by the nervous centers in the anxieties of business. (6) In the absence of these efficient factors in the production of the grave condition which may follow syphilis, the skilful management of that disease may terminate with brilliant results in from 75 to 80 per cent. of acquired cases. (7) The damage wrought by syphilis

is not to be measured solely by its lethal issues, though these are of chief concern to the life insurance actuary. The lowering of the standard of average health wrought by the inroads of the malady, often appreciable in the skin, bones, testes, liver and other organs, and the moral results of the acquisition of a disease popularly described as "loathsome," may jeopardize the best play of the body functions, pave the way for the inroads of other toxins, and possibly lay the foundation for mental degeneration, alienation and even suicide. (8) The expectation of life after the acquisition of syphilis is based in part only upon the tendencies of the morbid process. Such expectation is, in large measure, affected by the inherited tendencies, the habits of life and the environments of the individual. The longevity prospects are unquestionably better for women than for men by reason of the relative placidity of existence of the former.

Some Dermatologic X-Ray Abuses.—M. L. HEIDINGSFELD (*The Lancet-Clinic*, April 15, 1905).—The author reports sixteen cases, these cases having been selected from a larger class of similar experiences chiefly because they are especially adapted for this practical demonstration by reason of their careful photographic record. Briefly summarized, his conclusions are as follows: (1) The x-ray is not an infallibly reliable therapeutic agent in epithelioma, sarcoma and lupus vulgaris. (2) Procrastination, from its use, is often attended with irreparable harm. (3) The prolonged or careless use of the x-ray can be productive of epithelioma. (4) The use of the knife or well adapted pastes in selected cases of epithelioma is preferable to the x-ray in point of prompt and efficacious result. (5) In lupus vulgaris the x-ray possesses decidedly secondary powers to ultra-violet light. The x-ray may effect an early partial improvement or even a complete cure, but its persistent use is almost invariably followed by unfavorable reaction. (6) In alopecia areata the x-ray has not only failed to promote the return of the hair, but has induced permanent baldness. (7) The indiscriminate use of the x-ray as a cure-all tends to obtund the diagnostic perception and to place an inferior value on the higher keenness of attributes and loftier attainments of an advanced and discriminating medical knowledge.

Lichen Pilaris, seu Spinulosus.—H. G. ADAMSON (*The British Journal of Dermatology*, February and March, 1905).—Under the name of lichen spinulosus there is well known in England an affection of the skin occurring in children, and usually in boys, which is characterized by the appearance of fine filiform spines arranged in groups, more or less symmetrically, distributed over the trunk and limbs. The filiform spines arise from pilo-sebaceous follicles, the mouths of which follicles are slightly raised to form pin-head-sized papules, either of the normal color of the skin or slightly red. They are unaccompanied by itching or other subjective sensations, and there is little or no disturbance of the general health. Similar cases have been observed in France, although there the affection is not so well known and it is apparently not recognized as a distinct entity. The cases recorded in France have been described under different names. The acne cornee of Hardy and of Leloir and Vidal, and possibly also of Guibout, is the same disorder, but the cases of

acne cornee observed by Hallopeau, with the exception of one case, viz., acne cornee en aires, do not quite correspond to cases of lichen spinulosus seen in England. Other cases have been published by Barbe as examples of keratose folliculaire (*Type de Brooke*) and just recently a case by Audry under the title keratose pilaire enguinante. In addition to the typical cases of lichen spinulosus in children, where the spiny lesions constitute the whole eruption, there are other cases in which such lesions are associated with an eruption of lichen planus. Although this association may occur rarely in children, it is more common in adults. In adults, indeed, the occurrence of the spiny lesions seems to be usually, if not invariably, associated with lichen planus. This fact would seem at first to suggest some etiological connection between the two affections, lichen spinulosus and lichen planus; but further consideration shows that the purely spinous cases of children are without the subjective sensation of itching, while those cases associated with lichen planus do usually present this symptom. Moreover, the spiny lesions in these latter cases are usually associated with the acuminate follicular lesions of lichen planus, and it is most probable that they have, therefore, merely an accidental association with a perifollicular disturbance. Such an hypothesis is made more probable by the fact that similar spines are occasionally associated with the follicular lesions of lichen scrofulosorum and miliary syphilide, and also with those of pityriasis rubra pilaris. Histologically, the lesions of lichen spinulosus in children show that the pathological process is essentially a hyperkeratosis of follicle; perifollicular inflammation is absent, or at any rate very little marked.

OPHTHALMOLOGY.

IN CHARGE OF

JOHN GREEN, JR., M. D.

Some Remarks on Molluscum Contagiosum.—E. H. OPPENHEIMER (*Ophthalmology*, April, 1905).—Dr. Oppenheimer points out a few clinical features of molluscum contagiosum seldom mentioned in the text books on Diseases of the Eye. The statement that molluscum chooses the lids as the seat of predilection is not borne out by the author's experience or that of colleagues in Berlin. In Vienna and Frankfort, however, the disease is apparently more frequent, which may be accounted for by supposing that molluscum, like trachoma, shows certain geographical tendencies. As to size the molluscum growths vary from that of a pinhead to that of a small pea. In the text books they are invariably described as of the size of a pea.

Oppenheimer describes a case in a child of four who was sent to him with the request to remove the "warts." The tumors had a broad base and were generally of the same color as the rest of the skin. They varied in size from less than a pinhead to that of a small pea. They all presented a small pit, covered by thin tissue. Pressure with a small forceps caused a soft lump to escape from each tumor which, on micro-

scopical examination, was found to possess typical molluscum structure. Most of the growths were clustered round the tear sack, where they made the impression of an eczema.

Treatment advised is expression of the contents of the mollusca with a small forceps and covering the eczematous parts with xeroform.

Ulcerating Syphilide of the Cornea.—ANTONELLI (*Soc. d'Ophtalm. de Paris.* Session January 10, 1905).—Antonelli exhibited a wax model of the corneal lesions observed in an elderly man. The cornea was generally infiltrated and presented an appearance similar to that found in parenchymatous keratitis, except that ulcers were observed near the limbus. Erosions at the palpebral commissures and mucous plaques in the mouth were noted. The eye was soft and sightless. Cicatrization of the lesion was effected by specific treatment. The condition was regarded as an "ulcerating syphilide of the cornea."

Metastatic Choroiditis with Perforation of the Sclera and Subconjunctival Abscess. Origin of Suppuration Revealed by Microscopic Examination of the Pus.—CHAILLOUS (*Soc. d'Ophtalm. de Paris.* Session February, 1905).—The case presented many of the signs of orbital suppuration. Ophthalmoscopic examination was impossible owing to haziness of the media. From a little opening in the outer part of the edematous conjunctiva pus was seen to issue. Microscopical examination disclosed the presence of streptococci and choroidal pigment. The diagnosis of a metastatic choroiditis with perforation of the sclera was thus established.

Conjunctivitis Petrificans.—W. C. POSEY (*Annals of Ophthalm.*, April, 1905).—A colored adult female came under observation for recurrent attacks of inflammation of the eyes. The complaint was of "burning, itching, and a foreign body sensation." Examination revealed the presence of numerous yellowish white areas slightly raised above the conjunctiva, but beneath the epithelium. The plaques were situated for the most part in the tarsal conjunctiva of the upper lid. Between the spots the conjunctiva was red and swollen. A slight ring of opacity encircled the cornea and a superficial vascular opacity occupied the lower portion. There was no pain and very little discharge.

The writer reviews Leber's original description presented to the Ophthalmological Society of Heidelberg in 1895. The coalescence of the smaller spots into larger plaques is brought about by recurrent attacks. Although confined at first to the tarsal conjunctiva the disease tends later to spread to all portions and to involve the deeper tissues. Corneal ulceration occasioned by the constant rubbing of the chalk-like masses is a late complication.

The etiology of the disease is unknown, though Leber suspected a bacterial origin. Chemically, the deposits have been found to consist of various salts of lime. Treatment is, of course, concerned with the mechanical removal of the masses and the use of antiseptic washes.

BOOK REVIEWS.

THE STUDENT'S HANDBOOK OF SURGICAL OPERATIONS. By SIR FREDERICK TREVES. New edition revised by the author and Jonathan Hutchinson. W. T. Keener & Co., Chicago. 1904. Price, $2.50.

This book is intended for students who are preparing for a final examination or who need a guide in learning surgical operations on the cadaver. It is really an abridgement of the author's well known work on this subject. Everything has been omitted which has not a direct bearing on the most useful operations.

SURGICAL EMERGENCIES, THE SURGERY OF THE ABDOMEN. Part I, Appendicitis and Other Diseases About the Appendix. By BAYARD HOLMES. D. Appleton & Co., New York. 1904.

This pocket-sized edition of 350 pages from the pen of a well known Chicago surgeon is replete with well made illustrations and interesting personal experiences. At the same time the general considerations of the subject are touched upon, while the pathology, both gross and minute, come in for a share of the author's attention. After devoting 241 pages to appendicitis, Holmes successively takes up the study of peritonitis, perforated typhoid ulcer, carcinoma of the intestinal tract, etc. One of the most interesting things about the little book is the division consisting of four pages given to adages. This must, of course, be read in the original to be appreciated.

DIE BEGUTACHTUNG DER UNFALLVERLETZUNGEN. DR. EDUARD PIETSZIKOWSKI. ALGEMEINER THEIL. Berlin, W. 35. Fischer's Medicin. Buchhandlung. H. Kornfeld.

This book of 237 pages deals with the subject in hand with the characteristic thoroughness of the German student. The fact that the author is a teacher of medicine in the University of Prague is a sufficient guarantee that he is master of his subject. There is a full consideration of the laws of Austria, Switzerland and Germany.

BERICHT UEBER 137 GALLENSTEINLAPAROTOMIEN AUS DEM LETZTEN JAHRE. Von DR. HANS KEHR. Munchen, J. F. Lehmann's Verlag. 1905. $1.25.

One must necessarily give more than passing attention to this work of 315 pages from the pen of the leading German authority on gall stone disease, especially when this embraces a number of his operative experiences. However, the book does more than this; it treats, as well, cases that came under his observation and were not operated upon. During that time more than 300 gall stone patients were examined, which is in itself an evidence that the author does not consider all gall stone diseases as operable. The various general points of interest touched upon are illustrated by satisfactory case histories. Of course, a review is inadequate to do such a work justice. Each case history must be read to be appreciated.

MAGEE AND JOHNSONS EPITOME OF SURGERY. A Manual for Students and Practitioners. By M. D'ARCY MAGEE. In one volume of 295 pages, with 129 engravings. Cloth, $1.00 net. Lea Bros. & Co., Philadelphia and New York. 1904.

This little work is not intended as a general text book: it is more for students to use in quizzing. It will prove a great aid in preparing for examinations. It is nicely illus-

trated, and contains all of the simpler surgical material of value to the student. It may be added that it is strictly up to date.

MANUAL OF OPERATIVE SURGERY. By JOHN FAIRBAIRNE BINNIE, A. M., C. M. (Aberdeen). With 559 illustrations, a number of which are printed in colors. P. Blakiston's Son & Co., 1012 Walnut street, Philadelphia. 1905.

This is, in external appearance, the handsomest little volume which has recently appeared on surgery. It contains 644 pages, the paper being of a fine quality and the print of the finest. The illustrations, while necessarily small, to conform to the size of the page, are exceptionally clear and well reproduced. The author's selective ability is especially to be commended, since this little volume impresses the very best of the newer principles laid down by such pioneers of American surgery as Mayo Brothers and Ochsner and others who have worked along the same advanced lines. Older works of surgery have stuck too closely to the beaten track, and in large measures simply reproduced what had gone before. This has been happpily avoided by Dr. Binnie. Happily, such routine matters as amputation and ligatures have been omitted, at the same time many special fields of surgery were omitted for the reason that each special work treated on them. The author has used rare good judgment in placing in the surgeon's hands the most up-to-date little volume which has appeared.

CHIRURGIE DE L'APPAREIL GENITAL DE LA FEMME. PAR R. PROUST. 230 figures dans le text. Paris: Masson et Cie. editeurs. 1904. Price, $1.–

There does not exist to our knowledge another manual of this size which gives in the same concise and systematic form so complete a survey of modern operative gynecology. Precision of expression in the text, and unusual clearness of 230 well selected illustrations, enabled the writer to embody in this little volume of 260 pages not only a description of almost all the better known gynecological operations, but also short historical sketches of the gradual development of all the standard operations.

THE PRACTICAL MEDICINE SERIES OF YEAR BOOKS. Comprising ten volumes of the year's progress in medicine and surgery. Issued monthly. Under the general editorial charge of GUSTAVUS P. HEAD, M. D., Professor of Rhinology, Chicago Post Graduate School. Vol. II, General Surgery, edited by John B. Murphy, M. D., Professor of Surgery, Northwestern University Medical School. Series 1905. The Year Book Co., Publishers, 40 Dearborn street, Chicago.

The principal object in publishing this series was that the general practitioner might have the best of the year's material placed at his disposal in a convenient form. Still, the separate subjects are written up in separate volumes. The volume under discussion has 545 pages, and is a worthy successor to those which have gone before.

ASTHMA IN ITS RELATION TO THE NOSE. By ALEXANDER FRANCIS, M. B., B. C. Cantb. Publishers, Adlard and Son, Bartholomew Close, London.

In this little monograph on asthma and its relations to the nose the author clearly defines his views. He believes the ordinary classification to be faulty and misleading. In his opinion asthma is due to a spasm of the bronchial muscles, which spasm is probably always induced by reflex action. Clinical data of four hundred and two cases are appended, making this an interesting contribution to the literature on asthma in its relation to the nose.

DIFFERENTIAL DIAGNOSIS OF SYPHILITIC AND NON-SYPHILITIC AFFECTIONS OF THE SKIN, INCLUDING TROPICAL DISEASES; for Practitioners and Students of Medicine. By GEO. PERNET. Adlard & Son, London. 1904.

The reviewer does not know of any book that fits so nicely in the present requirements as this one. Such a fact has no doubt appealed to any one frequently called upon to make a differential diagnosis of those diseases of the skin which so closely resemble syphilis. Dr. Pernet in this little volume has covered the ground most thoroughly, going into the minutest details of the various eruptions which might simulate syphilis. Particularly does the reviewer notice, as an example, the differential diagnosis between pityriasis rosea and syphilitic roseola. Here are pointed out objective symptoms of great assistance in making the diagnosis. Lately the reviewer has been frequently called upon to make a differential diagnosis between these two conditions and each time he has been greatly puzzled and in some cases could only await further developments to perfect the diagnosis. He heartily recommends the volume to those interested in the subject.

DIAGNOSIS AND THERAPY OF ECZEMA. First part, Diagnosis. By DR. JESSNER. A. Stuber's Verlag, Wuerzburg.

This is one of the issues of Dr. Jessner's dermatological "Vortræge fuer Praktiker" and is a highly practical and clear presentation of the subject.

THE MODERN MASTOID OPERATION. By FREDERICK WHITING, A. M., M. D., Professor of Otology, Cornell University Medical College; Aural Surgeon to the New York Eye and Ear Infirmary, etc., illustrated by twenty-five half-tone and twenty-three key plates, made from original drawings. Philadelphia: P. Blakiston's Son & Co. 1905. Price, $6.

This handsomely illustrated work on the modern mastoid operation begins with a historical review of the development of mastoid surgery. Special stress is laid upon the Wilde's incision, the author affirming that whenever a Wilde's incision is indicated a mastoid operation is imperative. The Schwartze operation is also given special prominence. The body of the work is devoted to the "complete mastoid operation" as performed in the author's clinic at the New York Eye and Ear Infirmary. The complete operation differs in two important details from the commonly accepted procedure for mastoid conditions, in that an incision is made at right angle to the ordinary incision, thus making two flaps, which allow a comprehensive view of the field of operation. The second difference is in the routine removal of the tip of the mastoid, the pneumatic cells and diploic spaces at the root of the zygoma. A chapter is devoted to each of the various operative steps, which are given in the minutest detail from the initial incision to the post-operative care of the patient. Forty-eight beautiful illustrations accompany the text.

DIE WOCHENSTUBE IN DER KUNST. Eine kulturhistorische Studie. VON DR. ROBERT MUELLERHEIM. Mit 138 in den Text gedruckten Abbildungen. Verlag von Ferdinand Enke, Stuttgart, 1904. Price, Mks. 16.

By far the most reliable source for the study of the customs and habits of past times is offered in good pictures. Historical essays, chronicles or occasional accounts in epos or novel may at times prove of considerable value, but, as a rule, descriptions given in such places leave too much to the imagination of the interpreter.

In the last few years several attempts have been made to gain a more satisfactory conception of the manner in which medicine was practiced in the old and middle ages. The book before us is a most notable contribution to these studies. On the hand of pictures, etchings and sculptures, which comprise marble reliefs found in Rome and the

works of such men as Rubens, Murillo, Corregio, Brueghel, Duerer, Holbein, Hals and many others, the author speaks in a most instructive, and at times fascinating way, of the life in the lying-in chamber. He describes the mother's bed, the confinement chairs, the care of mother and infant, the new born's dress and nourishment. The chapters dealing with superstition, with popular and scientific views pertaining to the puerperal state are full of the most interesting references.

Not a small part of the value of this volume is dependent upon the 138 excellent half-tones which are printed on heavy glossy paper. The make-up of the book is artistic and fully up to the standard of the work that we are accustomed to see from this publishing house, which has made the publishing of such art volumes a sort of specialty.

KRANKHEITEN UND EHE. Herausgegeben von PROFESSOR DR. H. SENATOR UND DR. S. KAMINER. New York: Rebman Co., 10 W. 23d street.

The purpose of this volume is clearly set forth in a splendidly written introductory article by Senator, the well known clinician of Berlin.

Religion and legislation of the oldest times have attempted to regulate marriage from the moral and legal point of view. Practically no attention was paid to the question of the bodily fitness or unfitness of those entering the married state. Even the Mosaic laws, which excel in their consideration of the hygienic aspects of sexual life, refer to this question only in so far as they give certain rules regarding intermarriage. The one great purpose of married life, up to comparatively recent times, was the procreation of children. But probably with the only exception of the custom of Sparta, to destroy weak infants, practically nothing was done to secure a healthy and strong offspring.

To-day the importance of marriage in the general hygiene, and in the preservation of the vigor and valor of a race is well recognized. There are chiefly three problems which demand the full attention of modern medicine, namely, the married state as the cause of disease, the direct transmission of certain diseases from husband to wife, or vice versa, and, finally, the influence of a disease of one of the parents or of both upon the offspring. These three problems form the chief topics of the 27 monographs which constitute this volume of more than 1,000 pages. For obvious reasons no attempt can be made to even indicate here how the various writers have disposed of their respective subjects. But an approximate idea of the completeness and value of this treatise on "Disease and Marriage," may be gained from an enumeration of the various essays and their authors. The first half of the volume is devoted entirely to subjects of general interest: "The Hygienic Aspects of Marriage," by M. Gruber; "Congenital and Inherited Diseases," by J. Orth; "Intermarriage," by F. Krauss; "Climate, Race and Nationality," by Havelberg; "Sexual Hygiene of Married Life," by P. Fuerbringer; "Menstruation, Pregnancy, the Puerperium and Nursing," by R. Kossman. The second half of the volume deals with the relations existing between the various diseases and the married state: "Constitutional Diseases," by H. Senator; "Diseases of the Blood," by H. Rosin; "Diseases of the Circulatory System," von Leyden and W. Wolff; "Diseases of the Respiratory System," by S. Kaminer; "Diseases of the Digestive System," by Ewald; "Renal Disturbances," by P. F. Richter; "Diseases of the Locomotor Apparatus," by Hoffa; "Eye Diseases," by G. Abelsdorff; "Skin Diseases and Syphilis," by R. Lederman; "Gonorrhea," by Neisser; "Diseases of the Lower Urinary Tract and Physical Impotence," by Posner; "Gynecological Diseases and Impossibility of Conception," by L. Blumreich; "Nervous Diseases," by Eulenburg; "Insanity," by E. Mendel; "Sexual Perversion and Psychical Impotence," by A. Moll; "Alcoholism and Morphinism," by A. and R. Leppmann; "Professional Discretion and Marriage," by S. Placzek; "Social-Political Importance of the Hygiene of Married Life," by R. Eberstadt.

Each writer has furnished a sytematic and exhaustive expose of the topic assigned to him in form of an independent monograph, to which is appended a list of all the most noteworthy contributions to the subject. The great number of truly excellent articles in this volume speaks well for the wisdom of the editors in the choice of their collaborators. This volume seems to us of such far-reaching importance for the modern physician that we most sincerely hope to see it soon translated into the English language.

EYE, EAR, NOSE AND THROAT NURSING. By A. EDWARD DAVIS, A. M., M. D., and BEAMAN DOUGLASS, M. D., with 32 illustrations. Price, $1.25 net. F. A. Davis Company, Publishers, Philadelphia.

This little work, which is carefully and interestingly written, contains much practical information on a subject largely neglected in the general works on "Nursing." On page 20 are two "commandments" which should be rigorously heeded by all nurses engaged in ophthalmic nursing. The first is "thou shalt be altogether clean and gentle when caring for the eyes." The second, "thou shalt not apply poultices to the eye." Gentleness is again indirectly admonished on page 21, where we learn that the "touch of some nurses, also of some doctors, is as the tread of an elephant."

This little work, in common with nearly all the larger text-books on diseases of the eye, fails to mention the use of the weaker solutions of silver nitrate (gr. i, or gr. ii to the ounce), in the treatment of the simple catarrhal affections of the conjunctiva. The routine use of one and two per cent. solutions in cases of simple conjunctivitis, as taught by Dr. Davis, is not in accord with the best ophthalmic opinion. Such a use of silver nitrate is extremely painful, even when neutralized by salt solution, and, in the opinion of the reviewer, positively retards recovery.

BACTERIOLOGY AND SURGICAL TECHNIC FOR NURSES. By EMILY M. A. STONEY, Superintendent of the Training School for Nurses, St. Anthony's Hospital, Rock Island, Ill. Second edition, revised by Frederick R. Griffith, M. D. 12mo volume of 278 pages, fully illustrated. Philadelphia, New York, London: W. B. Saunders & Co. 1905. Cloth, $1.50 net.

The revision of the second edition of this practical work has been most thorough and extensive, the book having been increased in size by the addition of over 80 pages and many cuts. Dr. Frederick R. Griffith, to whom the work of revision was intrusted, has added several chapters of unquestionable importance: namely, bandaging and dressings; obstetric nursing, care of infants, etc.; hygiene and personal conduct of the nurse, etc.

A REFERENCE HANDBOOK FOR NURSES. By AMANDA K. BECK, of Chicago. 32mo volume of 150 pages. Philadelphia and London: W. B. Saunders & Co. 1905. Bound in flexible morocco, $1.25 net.

This little book contains information upon every question that comes to a nurse in her daily work, and embraces all the information that she requires to carry out any directions given by the physician; it includes also instructions for all emergencies that may arise before or between visits of the physician. Physicians will find the book of value, because it contains exact details as to solutions, foods, dosage, poultices, applications, etc.

THE DEVELOPMENT OF THE HUMAN BODY. A Manual of Human Embryology. By J. PLAYFAIR MCMURRICH, A. M., Ph. D., Professor of Anatomy in the University of Michigan. Second edition, revised and enlarged. With 272 illustrations. Philadelphia: P. Blakiston's Son & Co. 1904. Price, $3.00 net.

The first edition of this well-known and well-liked manual of embryology has become quickly exhausted, and the author makes use of the welcome opportunity to incorporate in this second edition the most recent literature and correct a few errors and faulty expressions of the previous edition.

TEXT-BOOK OF OBSTETRICS. By ADAM H. WRIGHT, Professor of Obstetrics in the Medical Faculty of the University of Toronto. Publishers: D. Appleton & Co., New York. 1905. Price, $4.50.

This new text-book of obstetrics will undoubtedly appeal to the student and practitioner. The author's presentation of the subject is decidedly from the standpoint of the practitioner. He avoids theorizing and devotes considerable space to therapy. Paragraphs dealing with questions like the following: "When may patient leave the bed? or, "is the presence of the husband during labor desirable?" etc., will certainly be appreciated by the young physician. The writer is conservative and lays particular stress upon "nature's efforts and methods." The style of this book is unusually direct and forcible, and made interesting by the interpolation of brief historical sketches, of which the one entitled "Listerism and Obstetrics," deserves special mention.

Being a first edition it is not surprising that the volume contains some inaccuracies, a few of which we may be permitted to point out. No mention is made of the process of embedding of the ovum in the uterine cavity, and, therefore, of necessity, the description of the formation of amnion and chorion and especially of the chorionic villi is, to say the least, lacking in clearness. On page 185 the definition of uniovular twins could be improved upon. The author speaks of ova discharged from the *same* follicle, and in the next sentence speaks of *two* follicles. On the following page he makes the surprising statement that uniovular twins may be of different sex. When the author warns against vaginal douche (on page 220) on account of the possibility that the douche may be forced into the peritoneal cavity, he apparently forgot that he was writing about the use of the douche during pregnancy. We do not believe that a pyosalpinx or suppurative ovarian cyst ruptures into the vagina spontaneously as is suggested on page 270. The author apparently has not accepted the view of a great number of modern authorities that a hydrorrhea of pregnancy may be actually caused by a leakage of amniotic fluid.

It is obvious that these criticisms are offered solely for the purpose of seeing these mistakes corrected in the next edition.

A HAND-BOOK OF NURSING. Revised Edition for Hospital and General Use. Published under the Direction of the Connecticut Training School for Nurses. Philadelphia and London: J. B. Lippincott Company. 1905. 12mo. 319 pages.

The general advance in the science of medicine has made it necessary to revise and enlarge the Connecticut Hand-Book of Nursing which has appeared in its first edition in 1878. This new edition provides instruction for hospital nurses in preparation for their later work in private families and is intended to assist the nurse in the intelligent performance of her daily duties.